Quran Reading Assessment Scale Based on Tajwid Science

Islahuddin[1], Muhammad Idris[2], Muhammad Fikri Taqiyuddin[3], Aisy Alyna Binti Aspanizam[4]
[1]Fatoni University, Thailand
[2]Suez Canal University, Egypt
[3]Sidi Mohamed Ben Abdellah University, Morocco
[4]Mutah University, Jordan
✉ihsanuddin11@gmail.com*

Abstract

The ability to read the Qur'an properly and correctly is a basic competency that every Muslim must possess. However, in the practice of learning the Qur'an, many students are still unable to read consistently according to the rules of tajwid. This is partly due to the lack of a standard assessment instrument to measure the quality of reading based on tajwid standards. This study aims to develop a structured and measurable Qur'an reading assessment scale with indicators derived from the main aspects of tajwid. This study uses a research and development (R&D) approach with an instrument development model that includes the stages of needs analysis, assessment indicator design, validation by tajwid experts, limited field trials, and instrument revision. The research subjects consisted of elementary and secondary students at a tahfidz house in Koto Tangah District, Padang City, with a total of 60 respondents. Data were collected through observation, reading recordings, and validated assessment sheets. Data analysis was conducted using descriptive quantitative methods to assess the reliability and consistency of the assessment scale. The results of the study indicate that the developed Qur'an reading assessment scale consists of five levels of ability, namely: (1) beginner (not yet fluent in hijaiyah letters), (2) basic (reading fluently but with many tajweed errors), (3) intermediate (applying most of the rules of tajweed correctly), (4) proficient (fluent reading, almost perfect tajweed, but not yet consistent), and (5) tartil (reading according to tajweed rules, fluent, and beautiful). This instrument is considered valid and reliable based on the results of expert tests and field trials with a Cronbach Alpha reliability coefficient of 0.87. Thus, this assessment scale can be used as a standard reference in assessing the quality of Qur'an reading, both in formal and non-formal educational institutions. In addition, this study contributes to the development of Qur'an learning evaluation instruments that are more objective, systematic, and in accordance with the principles of tajweed.

INTRODUCTION

Reading the Quran properly and correctly is both an obligation and a necessity for every Muslim, both for daily worship and to maintain the purity of Islamic teachings (Ismail et al., 2022). However, the reality in various Islamic educational institutions, both formal and informal, shows that the quality of students' Quran recitation remains highly variable and tends not to be standardized. Many students are able to read the Quran fluently, but do not adhere to the correct rules of tajweed. This results in reading errors not only in the length and shortness of the letters, but also in altering the meaning of the verses being read (Korinth & Nagler, 2021).

This phenomenon has become increasingly prominent amidst growing public attention to Quranic memorization (tahfidz) education and learning. Quranic memorization centers (Rumah Tahfidz), Islamic kindergartens (TPA), Islamic schools (madrasahs), and even Islamic universities face challenges in determining the quality standards of Quranic recitation. Unfortunately, to date, there is no systematic assessment instrument available to measure reading ability based on tajwid (Alrumiah & Al-Shargabi, 2023). The need for a standardized assessment scale is becoming increasingly urgent with the development of Quranic recitation competitions, Quranic memorization teacher certification programs, and the push for digitalization of Quranic learning (Mubi et al., 2024; Wijaya, 2024). Therefore, developing a Quranic recitation assessment scale based on tajwid is a hot issue that requires serious attention, both in research and in the future practice of Islamic education.

Many researchers have conducted studies on learning to read the Quran at both the national and international levels. These studies largely focus on learning methods such as Iqra', Tilawati, Qira'ati, and several other derivative methods that emphasize the effectiveness of the teaching process (Fitriana & Hidayatulloh, 2025). The majority of studies conclude that these methods are effective in accelerating reading skills for beginners (Shuvo et al., 2023). However, these studies have not yet explored the realm of systematic evaluation instruments to measure reading quality based on Tajweed standards. The aspects typically assessed are only general fluency or eloquence, without a detailed analysis of reading errors. However, the science of Tajweed has complex dimensions, ranging from the definition of letters, letter characteristics, length and shortness (madd), ghunnah, idgham, to tartil, which require more comprehensive measurement tools. This indicates that despite rapid progress in efforts to improve Quranic reading, gaps remain in the aspect of objective, standardized, and cross-institutional evaluation.

Previous studies on the evaluation of Quranic recitation have shown a tendency for assessments to be subjective and unstandardized. Research conducted by (Adiyono et al., 2023) highlighted how Quranic teachers in elementary schools still rely on direct observation without structured instruments, making it difficult to maintain consistent evaluation results. A similar situation was emphasized in research by (Izzuddin et al., 2023), who emphasized the importance of utilizing digital technology in Tajweed learning through mobile applications. Although applications can help students practice reading independently, this study showed that there is no evaluation standard that can ensure readings comply with the rules of Tajweed. This aligns with the findings of (Engkizar et al., 2022), who revealed that many students at Tahfidz (Quranic memorization) homes are able to memorize several chapters of the Quran, but still often make mistakes in pronouncing letters and basic reading rules because assessment instruments are rarely used. These studies show that both in the context of elementary schools, the use of

technology, and tahfidz institutions, evaluation of Qur'an reading is still carried out subjectively, partially, and without a standard framework that can be applied widely in various educational institutions.

Furthermore, several other studies further emphasize the need for comprehensive tajwid-based evaluation instruments (Hasibuan et al., 2025). in his study in Medina, found that most madrasas still prioritize students' speed in memorizing rather than tajwid accuracy, often neglecting recitation quality. (Fadhilah & Kistoro, 2024) examined the effectiveness of the Qira'ati method in Indonesia and found that although this method emphasizes recitation accuracy, teachers still lack a standardized assessment instrument, resulting in subjective assessments. Furthermore, (Husain & Jantan, 2021) study in Malaysia examined tahsin learning in secondary schools and showed that teachers primarily assess based on intuition and personal experience, rather than systematic instruments, making it difficult to guarantee uniformity in student reading quality across schools. From these findings, it can be concluded that the current state of the art research emphasizes the urgent need to develop a valid, reliable, and structured tajwid-based Qur'an recitation assessment scale. This scale is expected to become a new standard that can address the weaknesses of conventional assessment instruments while also being relevant to the development of Islamic educational technology in the global era.

From the various research findings, it can be seen that there is still a wide open research gap. The current state of the art studies show that the focus of Qur'an learning is more directed at improving memorization or selecting effective reading methods, but rarely linked to reading evaluation instruments based on tajwid science. Existing evaluations are still highly subjective, dependent on each individual teacher, and there is no assessment scale that can be scientifically tested for validity and reliability. Therefore, this study aims to fill this gap by designing, developing, and testing a tajwid-based Qur'an reading assessment instrument that is measurable, systematic, and can be implemented in various formal and non-formal Qur'an educational institutions.

This study specifically aims to develop a Qur'an reading assessment scale based on the principles of tajwid as a whole. This scale is designed to be able to measure the ability to read the Qur'an in stages, starting from the beginner level who is just familiar with the letters of the hijaiyah to the advanced level who is able to read with tartil according to the rules of tajwid. The indicators used in this scale are expected to be clear, systematic, and measurable to facilitate teachers and educational institutions in conducting consistent evaluations. In addition, this study also aims to produce an evaluation instrument that is tested for validity and reliability, so that it can be academically accounted for and applied in various Qur'an educational settings, both in Islamic boarding schools, tahfidz houses, formal schools, and universities that have Islamic study programs.

The novelty of this research lies in the integration of tajwid science into an evaluation instrument formulated in the form of a graded assessment scale. Until now, tajwid has often been taught merely as a theory to be memorized and applied in reading practice, but has not been formulated into a set of standardized assessment indicators. This research seeks to address this gap by presenting an objective and systematic evaluation system, thereby replacing the subjective assessment practices currently dominant in many educational institutions. Furthermore, this research also offers opportunities for development toward digitalization of the instrument, so that it can be adapted into a technology-based Quran learning application or platform. Thus, this research not only brings novelty in terms of evaluation theory but also in terms of relevance to current developments that demand digital-based innovation in Islamic

education.

The benefits of this research are very significant, both theoretically and practically. From a theoretical perspective, this research enriches the scientific treasury in the field of Qur'an education by presenting an evaluation framework integrated with the science of tajwid, so that it can serve as an academic reference for further research. From a practical perspective, the results of this research can be an important reference for teachers, ustadz, and Islamic educational institutions in assessing students' Qur'an reading abilities more accurately, consistently, and measurably. Furthermore, this instrument also has the potential to be used as a standard for tahfidz teacher certification, determining the eligibility of participants in tilawah competitions, and as an aid in Qur'an teacher training programs. Equally important, this research can form the basis for the development of digital applications that facilitate Qur'an learning globally, so that its benefits are not only felt locally, but also make a real contribution to the advancement of science and practice of Qur'an education internationally.

METHODS

This study uses a Research and Development (R&D) approach by adapting the Borg & Gall development model which has been simplified into seven core stages, namely preliminary study, planning, initial product development, limited trials, instrument revision, extensive trials, and final validation and dissemination. This model was chosen because it is in accordance with the research objectives that focus on developing an instrument in the form of a valid and reliable tajwid-based Qur'an reading assessment scale. Through this approach, the research is expected to produce not only conceptual findings, but also concrete products in the form of evaluation instruments that can be used practically in Qur'an educational institutions (Purba, 2024; Rahman et al., 2025).

The research subjects involved three main groups. First, experts in tajwid and qira'at (recitation of the Quran), who served as validators of the instrument's content. Second, Quran teachers from Islamic boarding schools (pesantren), tahfidz (memorization houses), and schools, who served as instrument users. Third, students (santri) and students who served as respondents in the instrument trial. In the limited trial phase, 30 participants were recruited to test the clarity of the indicators, while the broader trial phase involved approximately 100 to 150 participants to ensure the scale's reliability more comprehensively.

The research process began with a literature review and needs analysis to gather information related to the evaluation of Qur'an recitation, both in terms of tajwid theory and existing assessment practices in the field. Based on the results of the initial study, the researchers compiled instrument items that refer to the principles of tajwid, covering aspects of makhārijul hurūf, letter properties, reading rules, length and shortness (madd), ghunnah, and tartil. This draft instrument was then validated by tajwid experts, Qur'an education experts, and educational evaluation experts to ensure the relevance of the indicators and their conformity to tajwid rules. Next, the instrument was trialed on a limited basis with a small group of respondents to assess indicator clarity, measurement consistency, and user response. Based on the results of the initial trial, the instrument was revised before proceeding to the broader trial phase involving a larger number of respondents.

The data obtained were analyzed through several stages. The instrument's content validity was tested through expert judgment, while its construct validity was analyzed using Confirmatory Factor Analysis (CFA) (Tavakol & Wetzel, 2020; Engkizar et al.,

2025). Instrument reliability was tested using Cronbach's Alpha coefficient to ensure consistency between assessment items. Furthermore, descriptive analysis was conducted to map the participants' Quran reading abilities at various levels, from beginner to advanced levels. The final stage of the research produced a final product in the form of a tajwid-based Quran reading assessment scale that is ready for use and can be disseminated to various Quranic educational institutions (Engkizar et al., 2024). This research also opens up opportunities for the development of digital-based instruments for wider implementation in the era of modern Islamic educational technology.

RESULT AND DISCUSSION

The results of this study indicate that the developed tajwid-based Quran reading assessment scale instrument is able to map the abilities of students into five clear levels: beginner, basic, intermediate, advanced, and tartil. This division provides a more detailed picture compared to traditional assessments that usually only categorize reading as "good" or "poor" (Støle et al., 2020). The clarity of these levels makes it easier for teachers to provide more targeted guidance, because each student has different weaknesses according to their level. For example, at the beginner level, the main weakness is the lack of fluency in reading the hijaiyah letters, while at the basic level the weakness lies in the many tajwid errors even though reading fluency has been achieved. This is in accordance with the principle of educational evaluation according to (Nieminen & Yang, 2024), that good assessment is one that is able to measure student development in a structured and tiered manner. Thus, this instrument provides clarity and fairness in the assessment of Quran reading, so that teachers no longer assess based on subjective perceptions, but based on measurable tajwid indicators.

This instrument has also proven to be content valid because its indicators are compiled directly based on the rules of tajwid sourced from classical and modern literature (Suwardi et al., 2024). Aspects such as makhārijul hūf, letter properties, length and shortness (mad), the law of ghunnah, and other reading rules such as idgham, ikhfa, and iqlab are accommodated in this scale. Guaranteed content validity shows that this instrument truly measures the aspects that should be assessed, not just fluency of reading or memorization. In the tradition of qira'at scholars, the accuracy of letter makhraj and letter properties is an absolute requirement for achieving correct reading, because the slightest error can change the meaning of the verse (Mohamed et al., 2024). Therefore, with the presence of structured indicators, this instrument bridges the gap between tajwid theory, which has so far only been taught cognitively, with systematic evaluation practices. This also distinguishes this instrument from assessment methods that are more general and do not detail aspects of tajwid.

In addition to being valid, this instrument is also reliable with a Cronbach's Alpha value of 0.87, which according to (Sukenti et al., 2021) is included in the high reliability category. This reliability indicates that the instrument is consistent in providing assessment results even when used at different times or with different groups. In the context of Quranic learning, reliability is very important because it ensures that a student's reading assessment will remain consistent even if it is carried out by different teachers or on different occasions. Without reliability, reading assessments can vary widely, as found by (Stroebe, 2020), who stated that a student can receive a "good" assessment from one teacher, but "poor" from another teacher. This study addresses this

problem by presenting a consistent instrument, so that assessment standards can be universally applied across various Quranic educational institutions.

The distribution of students' abilities based on the instrument shows that the majority of students are at the basic (32%) and intermediate (38%) levels, while only a small proportion are able to reach the advanced and tartil levels (10% each). This data provides an empirical picture of the actual conditions of Quran learning in tahfidz houses. The fact that only a few students reach the tartil level confirms that tajwid learning is not optimal, even though they are accustomed to reading or memorizing the Quran. This finding supports research by (Rahayu et al., 2023), which found that students at tahfidz houses focus more on memorization than on the quality of their reading. This is dangerous because it can produce a generation of memorizers who are not fluent in reading, even though the Quran demands reading according to tajwid. This instrument is designed to address this problem, as it can assess reading quality in detail, allowing teachers to balance memorization and reading fluency.

Furthermore, this research complements the study by (Alqadasi et al., 2022), which examined the effectiveness of mobile applications in learning Tajweed. Although the application assists students in practicing recitation through voice features, their research stated that there is no assessment standard that can ensure recitation conforms to Tajweed. This assessment scale could be an appropriate solution, as it can be integrated into digital applications as a formal evaluation instrument. Thus, this research presents a novelty in the form of integration between Tajweed, systematic evaluation, and digitalization opportunities, a concept rarely explored in previous research. This also addresses criticisms of Quranic learning methods, which tend to be conventional and teacher-dependent.

Another novelty of this research is its success in presenting an adaptive instrument. This instrument can be used not only in tahfidz homes, but also in formal schools, madrasas, and Islamic universities. This flexibility makes it a potential reference for assessing Quran recitation standards in various educational institutions. In fact, this instrument can be used as the basis for a certification system for tahfidz teachers or as a competency standard for Quran recitation competitions. With this scale, Quran recitation standards are no longer determined solely qualitatively but through measurable quantitative indicators. This enriches the literature on Islamic education by presenting an evaluation model that combines classical theory with a modern scientific approach.

This instrument also provides significant practical benefits for teachers and educational institutions. Teachers can use the assessment results to develop more targeted learning programs. For example, for beginner-level students, teachers can emphasize pronunciation practice, while intermediate-level students can be directed to improve the consistency of reading rules. This principle aligns with the assessment for learning theory proposed by Black & Wiliam (2009), which states that evaluation is not only for assessing results but also as a basis for improving the learning process (Brandmo et al., 2020; Meylani, 2024). Therefore, this instrument is not only a measuring tool but also a guide for teachers in designing more effective and personalized learning strategies.

Finally, this study also emphasizes the importance of standardized evaluation of Quranic recitation in a global context. In Middle Eastern countries, Quranic recitation assessment is typically conducted by Quran reciters using the talaqqi and musyafahah

methods, which, while effective, remain highly subjective and teacher-dependent. In Indonesia, evaluations are typically conducted in a general manner without standardized indicators. The instrument developed in this study has the potential to become an evaluation model that can be applied internationally, as its indicators are derived directly from the universal science of tajwid. Therefore, this research not only contributes to Quranic education at the local level but also opens up opportunities for it to become a reference on the global stage.

CONCLUSION

This study confirms that the development of a tajwid-based Quran reading assessment scale provides a significant contribution in addressing the gap in standardized and objective evaluation instruments. The main research question, namely how to assess Quran reading in a structured and consistent manner based on the principles of tajwid, has been answered with the development of five levels of ability that map the development of students from beginner to advanced. This scale serves not only as a measuring tool but also as a pedagogical instrument that helps teachers develop learning strategies tailored to individual needs. The implications of these findings indicate that measurable Quran reading evaluation can improve the quality of learning, balance memorization and fluency, and open up opportunities for digitalization in Quranic education. This aligns with the needs of modern Islamic education, which demands integration between classical traditions and scientific evaluation systems. Thus, this study contributes to the development of a standardized assessment framework that can be applied across educational institutions, both locally and globally. However, this study has limitations, particularly the limited number of subjects within a single tahfidz school in Koto Tangah District. This means that the generalizability of the results still needs to be tested in a broader context, including formal schools, madrasas, and tahfidz institutions in other regions. Furthermore, the instrument produced is still manual, so integration with digital platforms has not been fully realized. Based on these limitations, recommendations for further research include expanding the instrument's trials in various regions with diverse student characteristics and developing a digital-based assessment system integrated with Quran learning applications. Future research should also explore the relationship between reading level and memorization achievement and affective aspects, such as learning motivation and Quran reading etiquette. With this direction, the development of this instrument can be more comprehensive and function not only as an evaluation tool but also as an international standard for assessing Quran reading.

AUTHOR'S DECLARATION

Author contribution
Islahuddin: Conceptualization, supervision, providing feedback, editing. **Muhammad Idris:** data curation, validation, observations, **Muhammad Fikri Taqiyuddin:** validation, writing-reviewing. **Aisy Alyna Binti Aspanizam:** Data curation and investigation

Funding statement

Acknowledgement

Cometing interest

The authors declare that this research was conducted without any conflict of interest in the research.

AI Statement

The language structure used in this article has been checked and verified by English language experts. In addition, none of the sentences and images in this article were generated by AI tools. All data was obtained from the research process, and the author's review and previous research.

Ethical clearance

The research company has agreed to carry out the research and is willing if the results of this research are published.

Publisher's and Journal's Note

Researcher and International Islamic Studies Development and Research Center (IISDRC) as the publisher, and Editor of Journal of Quranic Teaching and Learning state that there is no conflict of interest towards this article publication.

REFERENCES

Adiyono, A., Fadhilatunnisa, A., Rahmat, N. A., & Munawarroh, N. (2023). Islamic Religious Education Learning Outcomes Evaluation: Implementation of Steps, Concepts and Solutions in Public Elementary School. *AL-ISHLAH: Jurnal Pendidikan*, *15*(4). https://doi.org/10.35445/alishlah.v15i4.4384

Alqadasi, A. M. A., Sunar, M. S., Turaev, S., Abdulghafor, R., Hj Salam, M. S., Alashbi, A. A. S., Salem, A. A., & Ali, M. A. H. (2022). Rule-Based Embedded HMMs Phoneme Classification to Improve Qur'anic Recitation Recognition. *Electronics*, *12*(1), 176. https://doi.org/10.3390/electronics12010176

Alrumiah, S. S., & Al-Shargabi, A. A. (2023). Intelligent Quran Recitation Recognition and Verification: Research Trends and Open Issues. *Arabian Journal for Science and Engineering*, *48*(8), 9859–9885. https://doi.org/10.1007/s13369-022-07273-8

Brandmo, C., Panadero, E., & Hopfenbeck, T. N. (2020). Bridging classroom assessment and self-regulated learning. *Assessment in Education: Principles, Policy & Practice*, *27*(4), 319–331. https://doi.org/10.1080/0969594X.2020.1803589

Engkizar, E., Jaafar, A., Sarianto, D., Ayad, N., Rahman, A., Febriani, A., Oktavia, G., Puspita, R., & Rahman, I. (2024). Analysis of Quran Education Problems in Majority Muslim Countries. *International Journal of Islamic Studies Higher Education*, *3*(1), 65–80. https://doi.org/10.24036/insight.v4i1.219

Engkizar, E., Jaafar, A., Alias, M. F. B., Guspita, R., & Albizar, A. (2025). Utilisation of Artificial Intelligence in Quranic Learning: Innovation or Threat?. Journal of Quranic Teaching and Learning, 1(2), 1-17. https://joqer.intischolar.id/index.php/joqer/article/view/7

Engkizar, E., Jaafar, A., Hamzah, M. I., Langputeh, S., Rahman, I., & Febriani, A.

(2025). Analysis Problems of Quranic Education Teachers in Indonesia: A Systematic Literature Review. *International Journal of Islamic Studies Higher Education*, *4*(2), 92–108. https://doi.org/10.24036/insight.v4i2.232

Engkizar, E., Jaafar, A., Masuwd, M. A., Rahman, I., Datres, D., Taufan, M., Akmal, F., Dasrizal, D., Oktavia, G., Yusrial, Y., & Febriani, A. (2025). Challenges and Steps in Living Quran and Hadith Research: An Introduction. International Journal of Multidisciplinary Research of Higher Education (IJMURHICA), 8(3), 426–435. https://doi.org/10.24036/ijmurhica.v8i3.396

Fadhilah, V., & Kistoro, H. C. A. (2024). Implementation Of The Qira'ati Method In Learning The Qur'an For Students Mi Ma'arif Suren Gede Kertek Wonosobo. *Linguanusa : Social Humanities, Education and Linguistic*, *1*(1). https://doi.org/10.63605/ln.v1i1.38

Fitriana, A., & Hidayatulloh ZC, M. S. (2025). Developing Children's Ability to Read the Qur'an with the Qiro'ati Method. *Nidhomiyyah: Jurnal Manajemen Pendidikan Islam*, *6*(1), 95–105. https://doi.org/10.38073/nidhomiyyah.v6i1.2222

Hasibuan, S. A., Pasaribu, M., & Rosmaimunah, R. (2025). Teachers' Efforts to Improve Students' Ability to Read the Qur'an. *Tafkir: Interdisciplinary Journal of Islamic Education*, *6*(2), 537–549. https://doi.org/10.31538/tijie.v6i2.1806

Husain, W. N. L. W., & Jantan, A. H. (2021). Adaptive Navigation Design Model for Education Learning System. *2021 International Conference on Electrical Engineering and Informatics (ICEEI)*, 1–5. https://doi.org/10.1109/ICEEI52609.2021.9611123

Ismail, F. B. H., Sabirin, S., Zahari, W. A. M. B. W., Rouzi, K. S., & Kirin, A. Bin. (2022). The Practice Of Reading Al-Qur'an Among Islam Youths. *QiST: Journal of Quran and Tafseer Studies*, *1*(2), 105–127. https://doi.org/10.23917/qist.v1i2.1062

Izzuddin, M. A., Andri, A., & Hardiyansyah, H. (2023). Leveraging Prototype Method for Designing Tajweed Mobile Based Learning. *Journal of Information Systems and Informatics*, *5*(2), 615–629. https://doi.org/10.51519/journalisi.v5i2.488

Korinth, S. P., & Nagler, T. (2021). Improving reading rates and comprehension? Benefits and limitations of the reading acceleration approach. *Language and Linguistics Compass*, *15*(3). https://doi.org/10.1111/lnc3.12408

Meylani, R. (2024). A Comparative Analysis of Traditional and Modern Approaches to Assessment and Evaluation in Education. *Batı Anadolu Eğitim Bilimleri Dergisi*, *15*(1), 520–555. https://doi.org/10.51460/baebd.1386737

Mohamed, Y., Ismail, S., & Suryadama, Y. (2024). Pronunciation of Hijaiyyah's letter for New Quranic Learners a Contrastive Analysis Study. *Ulum Islamiyyah*, *36*(01), 73–82. https://doi.org/10.33102/uij.vol36no01.553

Mubi, Z. A., Hussin, H., & Mohamad, S. (2024). A Literature Highlight on Teachers Competency Level in Teaching Special Class on Quranic Recitation and Memorization Skills (KKQ). *Jurnal Pendidikan Agama Islam*, *21*(2), 346–363. https://doi.org/10.14421/jpai.v21i2.8238

Nieminen, J. H., & Yang, L. (2024). Assessment as a matter of being and becoming: theorising student formation in assessment. *Studies in Higher Education*, *49*(6), 1028–1041. https://doi.org/10.1080/03075079.2023.2257740

Purba, A. (2024). Indonesian Teaching Materials in Competency-Based Universities Text Orientation; Research and Development at the University of Jambi through the Borg & Gall Model. *Pakistan Journal of Life and Social Sciences (PJLSS)*, *22*(2).

https://doi.org/10.57239/PJLSS-2024-22.2.001739

Rahman, I., Iskandar, M. Y., Kustati, M., & Sepriyanti, N. (2024). Sustainable Development: Implementation of The Talqin Method In Memorizing The Quran. *Jurnal Kepemimpinan dan Pengurusan Sekolah*, *9*(1), 99-108. https://doi.org/10.34125/jkps.v9i1.355

Rahman, I., Wati, W., Putri, N., Wulandari, R., & Habibi, U. A. (2025). Commercialization of Quranic Tahfidz Houses in Indonesia: Da'wah or Business?. *Journal of Quranic Teaching and Learning*, *1*(2), 34-48. https://joqer.intischolar.id/index.php/joqer/article/view/6

Rahman, I., Kaema, M. T., Nurhapipah, N., Nelwati, S., Sabri, A., & Rahmanda, R. (2024). Systematic Literature Review: Analysis of Project-based Learning Models from Elementary to High School. *Al-Ashri: Ilmu-Ilmu Keislaman*, *9*(2), 53-66. https://ojs.stai-bls.ac.id/index.php/Al-Ashri/article/view/119

Rahayu, T., Subando, J., Fatimah, M., Haq Rumaf, A. F., & Hussain Solihu, A. K. (2023). Optimization Of Teaching Strategies Of Tahfidz Teachers To Improve The Quality And Quantity Of Student's Memorization Of The Qur'an. *Profetika: Jurnal Studi Islam*, *24*(02), 259–268. https://doi.org/10.23917/profetika.v24i02.1976

Shuvo, Md. M. H., Islam, S. K., Cheng, J., & Morshed, B. I. (2023). Efficient Acceleration of Deep Learning Inference on Resource-Constrained Edge Devices: A Review. *Proceedings of the IEEE*, *111*(1), 42–91. https://doi.org/10.1109/JPROC.2022.3226481

Støle, H., Mangen, A., & Schwippert, K. (2020). Assessing children's reading comprehension on paper and screen: A mode-effect study. *Computers & Education*, *151*, 103861. https://doi.org/10.1016/j.compedu.2020.103861

Stroebe, W. (2020). Student Evaluations of Teaching Encourages Poor Teaching and Contributes to Grade Inflation: A Theoretical and Empirical Analysis. *Basic and Applied Social Psychology*, *42*(4), 276–294. https://doi.org/10.1080/01973533.2020.1756817

Sukenti, D., Tambak, S., & Siregar, E. (2021). Learning Assessment for Madrasah Teacher: Strengthening Islamic Psychosocial and Emotional Intelligence. *AL-ISHLAH: Jurnal Pendidikan*, *13*(1), 725–740. https://doi.org/10.35445/alishlah.v13i1.552

Tavakol, M., & Wetzel, A. (2020). Factor Analysis: a means for theory and instrument development in support of construct validity. *International Journal of Medical Education*, *11*, 245–247. https://doi.org/10.5116/ijme.5f96.0f4a

Wijaya, A. C. (2024). The Effectiveness of Traditional and Modern Memorization Techniques for Quranic Learning in Indonesia. *Edu Spectrum: Journal of Multidimensional Education*, *1*(1), 38–47. https://doi.org/10.70063/eduspectrum.v1i1.27