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Enhancing Tajwid Skills through *Harakah*-Based Learning Media: An Evaluation of MPQu-Berkah among Schoolchildren

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Abstract
The research explores the efficacy of MPQu-Berkah, a *harakah*-based digital media, in enhancing tajwid skills among schoolchildren (Elementary Students), specifically focusing on *Makhārijul hurūf* and *Şifātul hurūf*. Utilizing a Nonequivalent Pretest-posttest Control Group Design, the study compares the tajwid proficiency of students engaging with MPQu-Berkah to those following traditional learning methods. The methodology encompasses pretests and posttests, alongside an independent t-test for statistical analysis, to evaluate the impact of the learning media on Quranic reading accuracy and fluency. Findings reveal a significant improvement in the experimental group's tajwid abilities, highlighted by an 11% average competency increase, evidencing MPQu-Berkah's effectiveness. The developed media, tailored for elementary education in the digital era, features audio-visual content designed to facilitate accessible and engaging tajwid learning. Despite the positive outcomes, the study acknowledges limitations due to its experimental setting and suggests future research to investigate the wider application and sustained impact of digital learning tools in religious education. This research underlines the potential for integrating multimedia tools in educational curricula, proposing a shift towards technology-enhanced learning environments to cater to the digital-native generation's needs. The findings advocate for a paradigm change in Quranic education, indicating that technological integration can substantially improve learning outcomes, contributing to the fields of educational technology and linguistic skill teaching.

Introduction

The integration of *Harakah*-based learning media into Quranic education represents a significant advancement in the pedagogical techniques employed to enhance Tajweed proficiency among school-aged children (Anis Azwa Kassim et al., 2021; Muyassaroh et al., 2022). This innovation not only addresses the pressing need for effective Quranic recitation practices but also aligns with the broader educational goals of improving literacy in religious texts. Given the Quran's central role in Muslim communities worldwide, advancements in teaching methodologies that facilitate a deeper understanding and more accurate recitation of the Quran are of paramount importance (Hakimi et al., 2024; Sahin, 2018). Moreover, this topic intersects with the disciplines of educational technology and religious studies, highlighting its relevance in contemporary educational research. The exploration of *Harakah*-based media as a tool for improving Tajwid represents a response to the ongoing search for more engaging and effective teaching methods in the field of Quranic studies (Hassan & Zailaini, 2013a; Wulandari et al., 2022).

Previous studies have laid a foundational understanding of various strategies and techniques in Quranic learning. For instance, the effectiveness of internal and external strategies for memorizing the Quran has been extensively documented, alongside the deployment of e-learning platforms like e-BBQ, which have shown to improve students' Quranic reading abilities

(Hanafi et al., 2019). Further, blended learning strategies utilizing social media for Tahsin learning have highlighted the critical role of curriculum design in enhancing learning outcomes (Syaiful Romadhon et al., 2019). These studies underscore the diverse approaches to Quranic education, reflecting a broad spectrum of pedagogical models aimed at optimizing student engagement and learning efficacy.

In the realm of Tajwid and pronunciation, the pedagogical focus has shifted towards identifying effective methods for teaching the nuances of Quranic recitation. Research has demonstrated the significant impact of rhythmic Quranic verses on memory performance (Hojjati et al., 2014), suggesting the potential of musicality in enhancing memorization. Moreover, the relationship between teachers' pedagogical content knowledge and student achievements in Tajwid underscores the importance of teacher training in effective Quranic education (Hashim et al., 2015). These studies collectively highlight the critical components of pronunciation and articulation in Quranic recitation, indicating the need for innovative teaching methods that cater to these aspects.

The application of technology in Quranic learning has witnessed significant advancements, with studies illustrating the benefits of using reinforcement learning-based simulators and augmented reality for teaching non-Arabic speakers (Alsharbi et al., 2021; Noor et al., 2019). These technological interventions offer personalized learning experiences and interactive platforms, enhancing the engagement and effectiveness of Quranic education. Additionally, the utilization of gamification and augmented reality in Tajwid learning has emerged as a promising strategy to attract and retain the interest of digital natives (Mohamed & El-Behaidy, 2021), suggesting a paradigm shift in the traditional methodologies of Quranic teaching.

Regarding the effectiveness and evaluation of Quranic learning, scholarly work has underscored the critical role of evaluation methods in assessing educational outcomes. Studies like those by A. Shukri et al., (2020) and Syaiful Romadhon et al., (2019) have illuminated the diversity of pedagogical strategies and their impact on memorization and understanding of the Quran. The application of technology, as seen through the deployment of e-learning platforms (M. Alagrami & M. Eljazzar, 2020; Mohamed & El-Behaidy, 2021) and augmented reality , represents a significant step forward in engaging students and enhancing their learning experiences. Moreover, the incorporation of gamification strategies has been identified as a promising approach to make learning more interactive and enjoyable (Mohamed Noor, N., Lob Yussof, R., Yusoff, F.H., Ismail, 2018). These advancements in Quranic education underscore the importance of innovative teaching methods and the need for continuous evaluation to ensure their effectiveness.

Despite these advancements, the literature reveals certain limitations and gaps that warrant further investigation. First, there is a scarcity of studies focusing explicitly on *Harakah*-based learning media and its direct impact on Tajweed proficiency among elementary school students. Many existing studies have generalized the use of technology in Quranic learning without delving into the specific benefits or challenges of implementing *Harakah*-based approaches. Additionally, the variability in evaluation methods across studies presents a challenge in comparing outcomes and drawing conclusive evidence about the most effective teaching methodologies (Al-Khowarizmi et al., 2021; Sihes et al., 2017; Zulaini et al., 2023). Moreover, the potential for digital divide issues, where access to technological resources may be unequal among students, has not been adequately addressed in the context of Quranic learning. This study aims to bridge these gaps by providing a focused examination of *Harakah*-based learning media's effectiveness in teaching Tajweed, considering both its potential advantages and limitations.

The primary focus of this research is to evaluate the impact of *Harakah*-based learning media (MPQu-Berkah) on enhancing Tajweed proficiency among elementary school students. By systematically investigating how this innovative educational tool influences students' mastery of *Makhārijul hurūf* and *Ṣifātul hurūf*, the study aims to contribute valuable insights into

effective Quranic teaching methods. Furthermore, this research seeks to explore the integration of *Harakah*-based media within the Quranic curriculum, assessing its practicality, accessibility, and overall impact on the quality of Quranic recitation. The potential contributions of this study to the field include the development of evidence-based recommendations for Quranic educators, the identification of best practices in the use of technology for religious education, and the enhancement of pedagogical strategies to support effective and engaging Quranic learning experiences. Through this focused inquiry, the research aims to offer a nuanced understanding of *Harakah*-based learning media's role in advancing Quranic education and its potential to foster a deeper engagement with the Quranic text among young learners.

Methods

This study employed a Nonequivalent Pretest-posttest Control Group Design to evaluate the effectiveness of the MPQu-Berkah Media, a *harakah*-based Quranic learning tool, in enhancing tajwid skills among fifth-grade students of MI Ma'arif Depok, Sleman (Creswell & Creswell, 2018). The methodology involved administering pretests to both experimental and control groups to assess initial tajwid skills, followed by the application of MPQu-Berkah Media in the experimental group, while the control group continued with conventional learning methods. Posttests were conducted to measure improvements in tajwid abilities. An independent t-test analyzed the effectiveness of the learning media, with significance determined by Sig. < 0.05, indicating a notable difference in Quranic reading quality between the groups. The study's validity and reliability were ensured through a preliminary evaluation of the learning media's validity, feasibility, and effectiveness, incorporating revisions based on feedback from teachers and students and observations during the trial phase.

The research design and methodology were comprehensive, incorporating data collection through pretests and posttests, the use of MPQu-Berkah Media for instructional purposes, and statistical analysis using independent t-tests to determine the learning media's effectiveness. This approach allowed for a rigorous assessment of the MPQu-Berkah Media's impact on students' tajwid skills, with the study's reliability and validity bolstered by an iterative evaluation process that included feedback and revisions, thereby underpinning the significance of *harakah*-based learning tools in Quranic education (Cohen et al., 2017).

Result

3.1.   MPQu-Berkah Media in the Form of Audio Visual (Video)

The product resulting from the development of this media is "*harakah*-based al-Qur'an learning media" hereinafter called "MPQu-Berkah". The material developed is about *Makhārijul hurūf* and *Şifātul hurūf* which can specifically be used by elementary/MI students. The development is carried out in audio visual (video) form so that it makes it easier for students to access and learn anytime and anywhere.

The learning media developed is in accordance with educational needs in the digital era which can utilize computers, laptops, cellphones as learning media. This media contains *Makhārijul hurūf* and *Şifātul hurūf* material with appropriate explanations accompanied by audio so that students can find out how to practice the *Makhārijul hurūf* and *Şifātul hurūf* material that is being studied, and there are interesting contemporary animations. This media can also be used in online and offline learning.

After compiling the script and creating a *harakah*-based Al-Qur'an learning media design, the next step is to create media in the form of audio-visual (video). Videos are made based on script/material and image design. The video contains content: an introductory section, a learning material section, and a closing section.

Development of Makhraj and Shifat letter learning media from image media to audio visual (video) media. The *Makhārijul hurūf* video contains images of the places where the letters and *hijaiyyah* letters come out packaged in moving images (*harakah*-based). The *Hijaiyyah* letters move from their *makhrj* along with the sound of the letters.

This *Makhārijul hurūf* material learning video consists of three videos, namely the halqiyyah letter video, the *lisāniyyah* letter video, and the *syafawiyyah* letter video. The learning video display is presented in the following image.
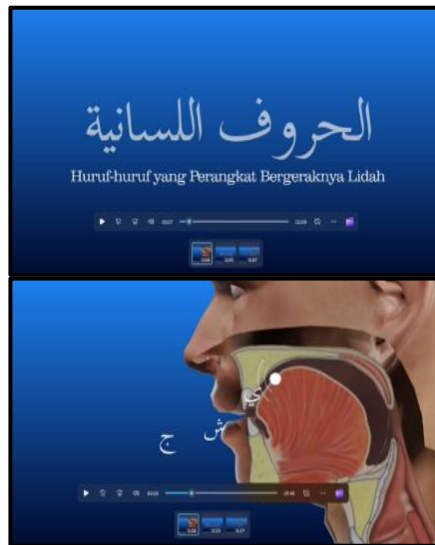

Figure 1. Video Media Display of *Makhārijul Hurūf*

In the image 1 video media, the researcher developed *Makhārijul hurūf* media from image media to animated image media. The letters are seen moving from their makhraj place along with the sound/audio of how to pronounce the letters. This video also shows the movements of the mouth parts, which are the tools for moving the *hijaiyyah* letters, such as the movements of the tongue, lips and so on. In this way, students are expected to be able to see, know, practice and memorize the *hijaiyyah* letters and their *makhraj* properly and correctly so that in the end they are able to pronounce them correctly and fluently.

Mistakes in pronouncing/sounding *hijaiyyah* letters are due to lack of knowledge about *Makhārijul hurūf*. For example, an error that many researchers find in the field is the pronunciation of the letters ظ ذ ث. Most students pronounce this letter without placing the tip of the upper incisors on the back of the tip of the tongue (the tongue is slightly out). This video shows the tongue moving out slightly and positioning the tip of the upper incisors above the back of the tip of the tongue. Likewise, this video shows the movements of the letters and the movement of the device for moving the letters.

The *Ṣifātul hurūf* video contains images of the mouth and other oral organs/equipment, *hijaiyyah* letters and their properties which are packaged in moving images along with sounds/sounds. The following is a video showing the properties of letters:

Figure 2. Video Media Display Of *Ṣifātul hurūf*

In the video media in Figure 2, the researcher developed the *Ṣifātul hurūf* (ordinary nature) media from book media to animation media (moving images). The letters which are grouped based on their nature are seen moving from their makhraj place along with the sound/audio of how to pronounce the letters accompanied by an explanation of their nature. For example, letters have the characteristic of hams (breath is exhaled), then this video shows the letters hams to move out along with wind symbols and explanations. Letters that have properties that are directly related to the movements of the body parts of the mouth, such as the properties of isti'la which are related to the base of the tongue, can be seen in the video with the movement of the base of the tongue rising to the ceiling. In this way, students are expected to be able to see, know, practice and memorize the *hijaiyyah* letters and their characteristics well and correctly so that in the end they are able to pronounce them correctly and fluently.

Mistakes in pronouncing/sounding the *hijaiyyah* letters are due to a lack of knowledge about the nature of the letters. An example of errors related to the nature of letters that many researchers find in the field is the pronunciation of the letters ت ك. Most students pronounce this letter without exhaling. This video media was developed to reduce these errors.

3.2. Effectiveness of MPQu-Berkah Media Development

Test Media Effectiveness With T-Test Statistics

After the product is declared valid, suitable and practical to use, experiments are then carried out with effectiveness tests to determine the effectiveness of the product. Testing media effectiveness with t-test statistics in this study consists of a normality test and a variance homogeneity test. The normality test was carried out using the Kolmogorov-Smirnov test. The decision making criteria is if the Sig. > 0.05, then the data comes from a normally distributed population. A summary of the normality test results is presented in the following Table 1.

Table 1. Summary of Normality Test Results

No	Information	*Test Statistic*	Sig.	Conclusion
1	**Experimental class**	0,171	0,128	Normal
2	**Control class**	0,150	0,200	Normal

Based on the summary of the normality test results above, it can be seen that the experimental class's Al-Quran reading competence has a Sig value of 0.128 and the control class's Al-Quran reading competence has a Sig value of 0.200. Because the Sig value. Both classes have a value of more than 0.05 (Sig. = 0.128 > 0.05 and Sig. = 0.200 > 0.05) so it can be concluded that the competency to read the Al-Quran in the experimental class and control class comes from a normally distributed population, so that media effectiveness testing using the independent sample t-test can be continued.

The homogeneity of variance test was carried out using Levene's Test for Equality of Variances. The decision-making criteria is if the Sig. > 0.05, then the experimental class and control class data have homogeneous variance. A summary of the results of the variance homogeneity test is presented in the following Table 2.

Table 2. Summary of Variance Homogeneity Test Results

Information	F	Sig.	Conclusion
Competence In Reading The Al-Quran In The Experimental Class And Control Class	0,116	0,735	Homogeneous

Based on the summary of the homogeneity test results above, it can be seen that the homogeneity test of the variance of Al-Quran reading competence in the experimental class and control class obtained an F value of 0.116 with a Sig value. of 0.735. Because the Sig value. = 0.735 > 0.05, it can be concluded that the Al-Quran reading competence of the experimental class and control class has a homogeneous variance, so that media effectiveness testing with the independent sample t-test can be continued.

The media effectiveness test in this research was carried out using the independent sample t-test. The decision-making criteria is if the Sig. < 0.05, then there is a significant difference in competence in reading the Koran between the experimental class and the control

class. A summary of the results of the effectiveness test carried out using the independent sample t-test is presented in the following Table 3.

Table 3. Summary of Effectiveness Test Results with t-test

Information	T	Sig.	Mean Difference	Conclusion
Al-**Quran** **Reading** **Competency** **Experiment** **Class >< Control Class**	8,721	0,000	12,2	Significant

The summary of the effectiveness test results shows that the value of t = 8.721 with a value of Sig. = 0.000. Because the Sig value. = 0.000 < 0.05 then, Ho is rejected. So, it can be concluded that at a significance level of 0.05, there is a significant difference in the effectiveness of the MPQu-Berkah media on Al-Quran reading competency between the experimental class and the control class.

The results of the analysis show that the mean difference in Al-Quran reading competence between the experimental class and the control class is 12.2. This means that the experimental class has a higher mean score than the control class with a difference of 12.2. Thus, it can be interpreted that providing treatment or MPQu-Berkah media treatment is able to increase competence in reading the Koran in the experimental group.

Comparison of the competency scores for reading the Qur'an resulting from the application of the old media with the MPQu-Berkah media in this section includes the competency scores for *Makhārijul hurūf* and *ṣifātul hurūf*. The results of the research data can be seen in the following Table 4.

Table 4. Comparison of the Values of *Makhārijul hurūf* and *Ṣifātul hurūf*

No	Assessment Aspects	Old Media		MPQu- Berkah Media	
		Average (Scale 3)	Average (Scale 100)	Average (Scale 3)	Average (Scale 100)
1	ء هـ	2,15	71,67	2,7	90,00
2	ع ح	2,85	95,00	2,55	85,00
3	غ خ	2,1	70,00	2,3	76,67
4	ق	2,2	73,33	2,7	90,00
5	ك	2,2	73,33	2,7	90,00
6	ج ش ي	2,85	95,00	2,85	95,00
7	ض	1,1	36,67	1,3	43,33
8	ل	2,85	95,00	3	100,00
9	ن ر	2,8	93,33	2,95	98,33
10	ت د ط	2,15	71,67	2,05	68,33
11	ز س ص	2,15	71,67	2,65	88,33
12	ث ذ ظ	1,1	36,67	1,8	60,00
13	ب م	2,95	98,33	3	100,00
14	و	2	66,67	2,2	73,33
15	ف	1,75	58,33	2,05	68,33
	Average	2,21	73,78	2,45	81,78

A comparison of the results of BTQ learning using old media with MPQu- Berkah in terms of competence in pronouncing letters according to *Makhārijul hurūf* and *Ṣifātul hurūf* is presented in table 17. In general, competence in pronouncing letters according to *Makhārijul hurūf* and *Ṣifātul hurūf* with *harakah*-based learning media is better than with old media. The average rating for *Makhārijul hurūf* and *Ṣifātul hurūf* with old media was 73.78 and new media was 81.78, so there was an increase of 11%. The biggest increase in the assessment of ظ ذ ث from a value of 36.67 to 60.00 with an increase of 64%.

Discussion

The integration of digital media into Quranic education, specifically through the *Harakah*-based learning approach, represents a pivotal shift in pedagogical strategies aimed at enhancing Tajwid skills among elementary students. Prior research has extensively explored the dynamics of educational strategies within Quranic learning, identifying a blend of internal and external strategies conducive to memorization and proficient recitation (A. Shukri et al., 2020). Furthermore, the acceptance and effectiveness of digital learning systems in religious education have been documented, highlighting usability and accessibility as critical factors for their integration into learning environments (Hanafi et al., 2021; Hassan & Zailaini, 2013a, 2013b). This study's focus on evaluating the effectiveness of *Harakah*-based learning media (MPQu-Berkah) in teaching *Makhārijul hurūf* and *Ṣifātul hurūf* aims to contribute to this ongoing dialogue, addressing gaps in current literature concerning digital media's role in Quranic education.

The development and subsequent evaluation of MPQu-Berkah revealed significant improvements in Tajwid proficiency among participants, particularly in areas concerning *Makhārijul hurūf* and *Ṣifātul hurūf*. These findings underscore the pivotal role of interactive and multimedia resources in fostering an engaging learning experience (Alsharbi et al., 2021; Hakimi et al., 2024; Hamzah Jaafar et al., 2022; Kurniawan Arief M et al., 2020; Mohd Zaki et al., 2021). The effectiveness of MPQu-Berkah was quantitatively affirmed through a rigorous statistical analysis, indicating a substantial difference in Quran reading competency between experimental and control groups (t = 8.721, Sig. = 0.000), thus validating the hypothesis that *Harakah*-based digital media can significantly enhance Tajwid learning outcomes.

The positive outcomes associated with the MPQu-Berkah media align with, and extend, findings from previous studies that have emphasized the benefits of digital and interactive media in educational settings (Basuhail, 2013; Hanafi et al., 2019; Hojjati et al., 2014). This synergy between the current study's results and existing literature not only corroborates the efficacy of digital media in enhancing learning outcomes but also highlights the specific advantages of *Harakah*-based instructional strategies in Quranic education. Contrasts emerge, however, in the comparative analysis of traditional versus digital learning tools, with this research underscoring the marked superiority of *Harakah*-based multimedia in addressing common Tajwid learning challenges (Julaeha et al., 2023; Nawi et al., 2020).

Further comparison reveals that the innovative approach of MPQu-Berkah effectively addresses previously identified pedagogical challenges in Tajwid education, such as the accurate articulation of Arabic phonetics and engagement with learning material (Basuhail, 2013; Mohamed & El-Behaidy, 2021). This study's findings are significant in light of research by Ulfah et al., (2020), which demonstrated the potential of augmented reality in enhancing the understanding of *Makhārijul hurūf*, suggesting that the integration of technology in Quranic education can yield substantial pedagogical benefits.

The significant improvement in Tajwid skills facilitated by MPQu-Berkah can be attributed to the media's ability to visually and auditorily guide students through the intricacies of Quranic articulation. This aligns with cognitive theories of multimedia learning, which posit that learners benefit from simultaneous verbal and visual information, enhancing retention and application of knowledge (Abdulrahaman et al., 2020; Azizah & Fatichah, 2023; Sihes et al., 2017). However, it is prudent to consider the variability in individual learning styles and the potential for digital divide issues to impact the generalizability of these findings (Al-Khowarizmi et al., 2021; Anis Azwa Kassim et al., 2021; Hamzah Jaafar et al., 2022; Zulaini et al., 2023). Caution should be

exercised in interpreting these results across different demographic and socio-economic contexts.

The findings of this study hold significant implications for the design and implementation of Quranic education curricula, suggesting that the integration of *Harakah*-based digital media could revolutionize traditional teaching methodologies. The evident success of MPQu-Berkah in enhancing Tajwid proficiency highlights the potential for wider adoption of similar digital resources in educational settings. Nonetheless, the study acknowledges the importance of a cautious interpretation, recognizing the necessity for further research to explore the long-term impacts of such media on learning outcomes and to examine its effectiveness across a broader spectrum of student demographics.

The practical implications of this research are manifold, indicating a promising direction for the future of Quranic education. By demonstrating the effectiveness of *Harakah*-based digital media, this study advocates for a paradigm shift towards incorporating multimedia learning tools in religious education curricula. The findings suggest that such digital resources not only enhance learning outcomes but also offer a means to engage the digital-native generation in meaningful and interactive ways (Muhammad Amirul Mohd Nor et al., 2021; Noor et al., 2019). The implications extend beyond the realm of religious education, proposing a model for the integration of technology in various educational disciplines, especially those requiring the mastery of complex linguistic skills.

Moreover, the success of MPQu-Berkah underscores the critical role of educators and curriculum developers in embracing innovative teaching methods that align with the technological advancements of the 21st century. It encourages a reevaluation of pedagogical strategies, suggesting that digital transformation in education can significantly contribute to the quality and accessibility of learning experiences (Karman et al., 2024; Kurniawan Arief M et al., 2020). Consequently, educational policymakers are urged to consider the integration of digital media like MPQu-Berkah into the standard curriculum, facilitating a broader and more inclusive approach to education that accommodates the diverse needs and learning styles of students.

In conclusion, this research highlights the transformative potential of *Harakah*-based digital media in enhancing Tajwid skills, providing a valuable contribution to the literature on digital learning in Quranic education. As the educational landscape continues to evolve, the findings of this study serve as a foundation for future research aimed at optimizing digital learning tools for religious and linguistic education, ensuring that learners are equipped with the skills necessary to navigate the complexities of modern and traditional knowledge domains.

Conclusion

This study aimed to assess the effectiveness of *harakah*-based learning media, MPQu-Berkah, on enhancing elementary school students' tajwid skills, particularly in *Makhārijul hurūf* and *Ṣifātul hurūf*. The creation of the MPQu-Berkah media in an audio-visual format was designed to meet the educational demands of the digital era, facilitating accessible and engaging tajwid learning through animations and audio-visual demonstrations. The application of this media in a controlled experimental setting revealed a significant improvement in Al-Qur'an reading competence among students who utilized the MPQu-Berkah, with statistical analysis validating the media's effectiveness in increasing the precision and fluency of Quranic recitation. Despite these positive outcomes, the study recognizes its limitations, such as its controlled experimental environment, which may not fully reflect the complexity of real-world educational settings.

Further research is encouraged to explore the broader applicability and long-term impact of the MPQu-Berkah media across various educational contexts, and to extend this approach to other aspects of religious education. The findings from this study advocate for a paradigm shift in Quranic education towards incorporating multimedia learning tools, suggesting that such technological integration can significantly enhance learning outcomes. This research not only contributes to the field of educational technology but also offers a model for leveraging digital

media in teaching complex linguistic skills, underscoring the potential for digital innovations to enrich educational experiences and outcomes in various disciplines.

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