

EFFECT OF DIGITAL QUR'ANIC TAJWEED PACKAGES ON ACADEMIC MOTIVATION AND RETENTION AMONG STUDENTS OF COLLEGES OF ARABIC AND ISLAMIC STUDIES IN KATSINA STATE

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Abstract

This study examined the effect of the Digital Qur'anic Tajweed Package on academic motivation and retention among students in Colleges of Arabic and Islamic Studies in Katsina State. Using a quasi-experimental, non-equivalent control group design, the study targeted 340 Senior Qur'anic School two (SQS2) students, with a sample of 72 selected via purposive and simple random sampling. Data were collected using the Qur'anic Retention Achievement Test (QRAT) and Academic Motivation Scale (AMS), which demonstrated reliabilities of 0.83 and 0.82, respectively. Analysis of Covariance (ANCOVA) at a 0.05 significance level revealed a significant differential effect of the digital package on both academic motivation ($p = 0.000$) and Qur'anic recitation ($p = 0.000$) compared to the control group. The findings indicate that digital tools significantly enhance student engagement and knowledge preservation. Consequently, it is recommended that educational institutions incorporate digital Tajweed tools into their curricula. Furthermore, the government should organize professional development workshops to equip educators with the technical and pedagogical skills necessary for effective digital instruction in Islamic studies.

Keywords: Digital Quranic Package, Academic Motivation, Retention

Introduction

The numerous obstacles that Colleges of Arabic and Islamic Studies confront when teaching and mastering Qur'anic memorizing. Limited training for teachers, limited facilities for instruction, and antiquated teaching techniques are important aspects of these problems. Incorporating digital technologies into Qur'anic teaching could greatly improve students' memorization and recitation skills in the twenty-first century, when information and communication technology (ICT) dominates many areas. Innovative teaching methods have been introduced in the 21st century by developments in educational technology, which have made learning more collaborative and participatory through activity-based classes. Because of the region's significant Islamic tradition, Qur'anic studies are fundamental to the educational system in Katsina State, Nigeria. From elementary school to higher education, there are many Colleges of Arabic and Islamic Studies that serve students at various levels. These institutions' main goal is to guarantee that students acquire a thorough comprehension of the Qur'an, as well as proficiency in memory (Hifz) and recitation (Tajweed) (Graham, 2017). Oral recitation and rote memory have historically been major components of instructional strategies. Nonetheless, the necessity of incorporating contemporary techniques like audiovisual learning to improve retention and comprehension is becoming increasingly apparent.

Digital Qur'anic packages can provide individualized instruction based on the needs and learning preferences of each learner. This convenience can increase motivation, as learners feel more in control of their learning experience, Digital Qur'anic packages can provide learners with opportunities

to share their progress and connect with others who are also learning the Qur'an. This social aspect can increase motivation, as learners feel part of a community, (Islamic Finder, 2020). But Extrinsic or intrinsic motivation is a force that propels action in the direction of an objective. It is essential for stimulating students' interest and motivating them to perform better in an educational setting. McCoach, and Flake, (2018) define motivation as an internal force that propels people to act in order to achieve their goals. Motivation is crucial for long-term engagement and mastery for students studying the Qur'an, the divine text entrusted to Prophet Muhammad (SAW) as guidance for humanity. By offering an interesting and dynamic learning environment, digital Qur'anic packages can boost students' enthusiasm and interest (Al-Khateeb 2018).

By offering students interactive lessons and activities on Tajweed rules, digital Qur'anic packages can improve Tajweed awareness, learners can practice reciting the Qur'an at their own pace with more practice chances offered via digital Qur'anic packages (Khan, 2017). Learners can find and fix their errors by using digital Qur'anic packages that offer tailored feedback and corrections on their recitation. (2020, Qur'an Gateway). Digital Qur'anic packages can make it easier for students to practice reciting the Qur'an by giving them access to Qur'anic instruction at any time and from any location (IslamicFinder 2020).

Retention, closely linked to memory, refers to the ability to store and recall learned information over time (Umar, 2019). Alake (2015) defines it as the capacity to preserve knowledge in both short-term and long-term memory. For Qur'anic students, retention is critical, as it measures their cognitive ability to retain verses accurately. Retention tests, conducted days or weeks after learning, assess how much knowledge students have preserved (Magnuson, 2004). Digital Qur'anic packages can improve recitation skills by providing learners with access to high-quality audio and video recordings of professional Qaris (reciters), (Al-Khateeb, 2018).

Given these developments, this study seeks to explore whether incorporating Digital Qur'anic Tajweed Packages can improve students' motivation, recitation skills, and retention of the Holy Qur'an. By leveraging modern technology, Islamic education can evolve to meet contemporary learning needs while preserving its sacred traditions.

The long journey from a series of digital technologies in the form of media has mediated the world of al-Qur'an study with the birth of al-Qur'an teaching applications to the presence of books online (Cruz, et al., 2018). In the digital era, learning activity requires several competencies including several applications to use digital media like digital Quran. Digital Qur'anic package in the learning process tends to be defined as graphic, photographic, or electronic tools for capturing, processing and rearranging visual or verbal information. (Arif, 2018). The presence of the Qur'an and tafsir in digital form becomes a real internalization of the impact of digitization (Masduki, 2020). Digital Qur'anic packages have transformed Qur'anic education, offering interactive features, audio recitations, and multimedia content (Khan, 2017) Digital Qur'an package is a software application played by certain tools and this also explains the position of compact discs (CDs), digital video discs (DVDs) cassettes and videos in which containing the holy verses of Quran. Hence, it is quite understandable that holding a modern portable device with digital Quran installed on it without ablution is thus, permissible (arif 2018)

.Given this trend, the researcher seeks to determine whether a Digital Qur'anic Package (DQP) can improve motivation and retention among students in Katsina State. The study therefore investigated the Effect of Digital Qur'anic Tajweed Package on Academic Motivation, Qur'anic and Retention among Students of Colleges of Arabic and Islamic Studies in Katsina State.

Statement of the Problem

Colleges of Arabic and Islamic Studies face numerous obstacles in teaching and mastering Qur'anic memorization, including limited teacher training, inadequate instructional facilities, and antiquated teaching techniques. While traditional methods rely heavily on oral recitation and rote memory, the necessity of incorporating contemporary techniques like audiovisual learning to improve retention and comprehension is becoming increasingly apparent.

Digital Qur'anic packages offer individualized instruction that allows students to feel more in control of their learning experience, which can increase motivation (Islamic Finder, 2020). Furthermore, these packages provide interactive lessons on Tajweed rules and high-quality audio from professional Qaris to improve recitation skills (Al-Khateeb, 2018; Khan, 2017). Despite these technological advancements, students often struggle with retention, which measures their cognitive ability to preserve verses accurately over time (Alake, 2015; Umar, 2019). This study seeks to determine whether the integration of Digital Qur'anic Tajweed Packages can improve motivation and retention among students in Katsina State to meet contemporary learning needs while preserving sacred traditions.

Objectives of the Study

The following are the objectives of the study:

1. To investigate the difference in the Academic motivation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state.
2. To examine the difference in the Qur'anic Recitation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state.

Research Questions

The researchers asked the following questions in the study.

1. What is the difference in the Academic motivation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state?
2. What is the difference in the Qur'anic Recitation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state?

Hypotheses

HO1: There is no significant difference in the Academic motivation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state.

HO2: There is no significant difference in the Qur'anic Recitation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state.

Methodology

The study adopted a quasi-experimental research design, specifically utilizing a pre-test, post-test, and post-post-test non-equivalent control group design. The target population of the study consists of 340 Senior Qur'anic School two (SQS2) students in all Government Colleges of Arabic and Islamic studies in Katsina State. There are four (4) public colleges of Arabic and Islamic Studies School operating Qur'anic Studies in Katsina state. Multisampling techniques was used select the sample of

the study specifically purposive sampling was used to select schools that are co-educational schools, after which simple random sampling was used to select two schools and to assign one as experimental and as control groups respectively. In each of the schools, intact class was used. The sample size of the study was 72 Senior Qur'anic Studies two (SQS2A) students from two schools.

Two instruments were used to collect data in this study; Qur'anic Recitation Achievement Test (QRAT) which was developed by the researcher and Academic Motivation Scale (AMS) which was also adapted from Abubakar (2022). QRAT and AMS were validated by four experts, one from Arabic department, another one from Islamic Studies department and the other two from Measurement and Evaluation and Educational Psychology and Counseling. All from Federal University Dutsin-Ma. Pilot test was administered to a sample of twenty (20) students from Rabia College of Arabic and Islamic studies Gusau, using test-retest method at the interval of two weeks. The two scores obtained from the sample of the first administration were correlated with that of the second administration using the Pearson Product Moment Correlation Coefficient Statistics where the coefficient value of 0.83 was obtained. To obtain the internal consistency of academic motivation scale (AMS) the instrument was administered and scored appropriately, and the data obtained was analyzed using Cronbach's Alpha statistics, where the alpha value of 0.82 was obtained.

Descriptive and inferential statistics were used to analyze the data collected. Mean and standard deviation were used to provide answers to the research questions. Analysis of covariance (ANCOVA) was used to test seven hypotheses formulated for the study at 0.05 level of significance.

Results and Discussions

Research Question One: What is the difference in the Academic motivation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state.

Table 1: Post-test Means and Standard Deviations Scores for AMS of the Groups

	Group	Mean	Std. Deviation	Std. Error Mean	Mean Difference
Motivation Post Test	Experimental	65.54	8.629	1.382	7.478
	Control	58.06	5.267	.917	

Table 1 indicated that the academic motivation of students for Experimental Group (students who used the digital Qur'anic Tajweed package): Mean Academic Motivation Score = 65.54, Standard Deviation = 8.629 and Standard Error Mean = 1.382. While that for Control Group (students who did not use the digital package): Mean Academic Motivation Score = 58.06, Standard Deviation = 5.267 and Standard Error Mean = 0.917. The Mean Difference in Motivation Scores = 7.478 (Experimental group scored higher). The digital Qur'anic Tajweed package had a positive effect on academic motivation. The experimental group had a significantly higher mean motivation score (65.54) compared to the control group (58.06), with a difference of 7.478 points. This suggests that students who used the digital package demonstrated higher academic motivation than those who did not.

Research Question Two: What is the difference in the Qur'anic Recitation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state.

Table 2: Means and Standard Deviations Scores for QRRAT in the Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference
Post-test	Experimental	39	87.95	3.448	.552	32.37
	Control	33	55.58	12.605	2.194	

Table 2 revealed that the Qur’anic recitation for Experimental Group (students using digital Tajweed package): Mean Recitation Score = 87.95, Standard Deviation = 3.448 and Standard Error Mean = 0.552. While that of Control Group (students not using the digital package): Mean Recitation Score = 55.58, Standard Deviation = 12.605 and Standard Error Mean = 2.194. The Mean Difference in Recitation Scores = 32.37. The digital Qur’anic Tajweed package had a strong positive effect on Qur’anic recitation. The experimental group significantly outperformed the control group with a much higher mean recitation score (87.95 vs. 55.58), showing a large difference of 32.37 points.

Testing of Hypotheses

H01: There is no significant differential effect of digital Qur’anic tajweed package on Academic motivation between control group and experimental groups of students in Colleges of Arabic and Islamic studies in Katsina state.

Table 3: ANCOVA Analysis of the Post-Test Mean Scores for AMS of the Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1016.925a	2	508.462	9.482	.000
Intercept	8082.829	1	8082.829	150.726	.000
Motivation pre-test	17.385	1	17.385	.324	.571
Group	1006.156	1	1006.156	18.762	.000
Error	3700.186	69	53.626		
Total	282478.000	72			
Corrected Total	4717.111	71			

R Squared = .216 (Adjusted R Squared = .193)

Table 3 revealed that the, effect of Group (experimental vs. control) on academic motivation has F-value of 18.762 with a p-value of 0.000. Since $p < 0.05$, therefore the null hypothesis were rejected (H01) and conclude that there is a significant differential effect of the digital Qur’anic tajweed package on academic motivation. From Effect Size (R-Squared): the R-Squared value = 0.216, meaning that 21.6% of the variation in academic motivation can be explained by the model (group differences and other factor The Adjusted R-Squared = 0.193, indicating a slightly lower but still meaningful explanatory power. From Pre-Test Motivation (Covariate Analysis): The pre-test motivation score has an F-value of 0.324 and $p = 0.571$, meaning it is not a significant predictor of post-test motivation. This suggests that initial motivation levels did not significantly affect the outcome. However, the digital Qur’anic tajweed package significantly improved academic motivation among students in the experimental group compared to the control group. Since the null hypothesis

(H01) is rejected, and conclude that the digital package has a positive impact on students' academic motivation in Qur'anic recitation studies.

H02: There is no significant difference in the Qur'anic Recitation of students taught using Digital Qur'anic Tajweed Packages and those taught using the Traditional method in Colleges of Arabic and Islamic studies in Katsina state.

Table 4: ANCOVA Analysis of the Post-Test Mean Scores for QRRAT of the Groups

Source	Type III Sum Squares	df	Mean Square	F	Sig.
Corrected Model	18733.555a	2	9366.778	116.756	.000
Intercept	41216.792	1	41216.792	513.762	.000
Pretest	.402	1	.402	.005	.944
Group	17912.519	1	17912.519	223.277	.000
Error	5535.556	69	80.225		
Total	409126.000	72			
Corrected Total	24269.111	71			

R Squared = .772 (Adjusted R Squared = .765)

Table 4 revealed that the effect of Group (experimental vs. control) on Qur'anic recitation has an F-value of 223.277 with a p-value of 0.000. Since $p < 0.05$, the null hypothesis (H02) was rejected and concluded that there is a significant differential effect of the digital Qur'anic tajweed package on Qur'anic recitation. The R-Squared value = 0.772, meaning that 77.2% of the variation in Qur'anic recitation performance can be explained by the model (group differences and other factors). The Adjusted R-Squared = 0.765, which is slightly lower but still indicates a strong explanatory power of the intervention. The pre-test Qur'anic recitation score (Pretest) has an F-value of 0.005 and $p = 0.944$, indicating that it is not a significant predictor of post-test performance. This suggests that initial recitation abilities did not significantly impact the results, and the digital Tajweed package played a major role in the observed improvements. The digital Qur'anic Tajweed package significantly improved students' Qur'anic recitation skills, as evidenced by the high F-value (223.277) and significant p-value (0.000). The rejection of the null hypothesis (H02) confirms that students in the experimental group outperformed those in the control group, demonstrating the effectiveness of the digital learning approach in enhancing Qur'anic recitation proficiency.

Summary of Findings

The findings of this study are summarized as follows:

The use of the Digital Qur'anic Tajweed package has a significant positive effect on students' academic motivation in Colleges of Arabic and Islamic Studies in Katsina State ($p=0.000$).

The Digital Qur'anic Tajweed package significantly enhances students' retention of Tajweed knowledge, as evidenced by a statistical F-value of 82.857 ($p=0.000$).

Students in the experimental group consistently outperformed the control group in both motivational levels and long-term knowledge retention.

Discussion of Findings

The finding indicating that digital tools boost motivation underscores the effectiveness of integrating digital learning into Qur'anic education to enhance student engagement. This result is in line with the study by Aprianto et al. (2022), which examined the use of audio-visual learning media to grow the motivation of students. Their research similarly concluded that audio-visual media fosters higher

learning motivation among students, specifically in the context of fifth-grade PJOK students at MI Kenongomulyo.

Furthermore, the significant evidence regarding enhanced knowledge retention suggests that technology-assisted learning provides a more engaging and interactive approach than traditional methods. This finding confirms that digital tools lead to better long-term recall of Tajweed rules, supporting the broader educational shift toward technology-enhanced learning. This aligns with Adi (2023), who found that the era of digitization has a profound impact on the existence and dissemination of the Qur'an and Tafsir. Digital media serves as a new, effective way to internalize and spread the understanding of the Qur'an. Consequently, this study highlights the need for a wider adoption of digital learning strategies in Islamic studies to ensure superior academic outcomes.

Conclusion

Based on the findings of this research, it is concluded that the Digital Qur'anic Tajweed package significantly enhances academic motivation among students in Colleges of Arabic and Islamic studies in Katsina State. Furthermore, the digital package has a significant positive effect on students' Qur'anic recitation skills. The statistical superiority of the experimental group confirms that technology-assisted instruction is more effective than traditional methods in improving both Tajweed proficiency and student engagement.

Recommendations

Based on the findings of this study, the following recommendations are made:

- i. Colleges of Arabic and Islamic Studies in Katsina State should formally incorporate digital Tajweed tools and packages into their official curriculum to modernize the learning process.
- ii. The government and relevant educational authorities should organize workshops and professional development programs to equip teachers with the necessary technical skills and pedagogical strategies for effectively implementing digital learning in Islamic studies.

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