The Effectiveness of Using Tajwid Rule Flashcards on the Cognitive Abilities of Junior High School Students

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ABSTRACT

This research aims to assess the significant differences in cognitive abilities among students before and after using the flashcard media for the rules of Tajwid in Islamic Education classes for eighth-grade students in junior high school and to evaluate the effectiveness of using flashcards for Tajwid rules on students' cognitive abilities in Islamic Education classes for eighth-grade students in junior high school. This research employs a quantitative pre-experimental approach with a one-group pre-test and post-test model. The sample was selected using a purposive sampling technique, involving 16 eighth-grade students with specific considerations. Data were collected through learning outcome tests, which were then analyzed using descriptive and inferential statistics. The results of descriptive analysis indicate an improvement in students' learning outcomes after using flashcards for Tajwid rules, as reflected in the increased average scores of written and oral tests from pre-tests to post-tests. Inferential analysis shows the effectiveness of using flashcards for Tajwid rules on students' cognitive abilities, as evidenced by the results of hypothesis testing. The n-gain test also indicates that the use of flashcards for Tajwid rules can be categorized as "fairly effective" with an average increase in n-gain scores of 56.9746% for written tests and 56.2785% for oral tests.

Keywords: Flashcards, Tajwid Rules, Cognitive Abilities

ABSTRAK

Penelitian ini bertujuan untuk menilai perbedaan yang signifikan dalam kemampuan kognitif peserta didik sebelum dan sesudah menggunakan media *flashcard* hukum tajwid pada pelajaran PAI kelas VIII SMP serta untuk mengevaluasi efektivitas penggunaan *flashcard* hukum tajwid terhadap kemampuan kognitif peserta didik di mata pelajaran tersebut. Penelitian ini menggunakan pendekatan kuantitatif *pre-eksperimen* dengan model one group pre-test and post-test. Sampel dipilih menggunakan teknik *purposive sampling*, dengan melibatkan 16 peserta didik kelas VIII dengan pertimbangan tertentu. Data dikumpulkan melalui tes hasil belajar, kemudian dianalisis menggunakan statistik deskriptif dan statistik inferensial. Hasil analisis deskriptif menunjukkan adanya peningkatan hasil belajar peserta didik setelah menggunakan *flashcard* hukum tajwid, yang tercermin dari peningkatan skor rata-rata tes tertulis dan lisan dari *pretest* ke *posttest*. Analisis inferensial menunjukkan bahwa terdapat efektivitas penggunaan flashcard hukum tajwid terhadap kemampuan kognitif peserta didik, seperti yang ditunjukkan oleh hasil uji hipotesis. Uji n-gain juga menunjukkan bahwa penggunaan *flashcard* hukum tajwid dapat dikategorikan sebagai "cukup efektif" dengan peningkatan rata-rata n-gain tes tertulis sebesar 56,9746% dan n-gain tes lisan sebesar 56,2785%.

Kata Kunci: Flashcard, Hukum Tajwid, Kemampuan Kognitif

INTRODUCTION

Islamic Education is one of the components for the formation of intelligent and morally noble individuals, enabling the deepening of religious spirituality to become exemplary and adept individuals in society. In order to realize exemplary and skilled students, one must study religious knowledge well and correctly.

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One of the difficult materials to understand and memorize in the subject of Islamic religious education is the material that falls under the discussion of Quranic law concerning Tajwid. However, in reality, there are still many students who are unable to read the Qur'an properly according to Tajwid. According to a statement by the Chairman of the Indonesian Mengaji Foundation, Commissioner General Syafruddin, only 35% of Indonesia's Islamic population can read the Qur'an, although 87.2% of them are Muslims (Mia Umam and T.C Kusumandyoko, 2022). Yet, at every level of education, starting from elementary, junior high, and high school, as well as in non-formal institutions such as TPA/TPQ, students are taught how to read the Qur'an.

The Qur'an is the word of Allah which serves as guidance and a way of life for all Muslims worldwide. Reading it is an act of worship, and practicing it is a religious command. Therefore, as Muslims, it is important to be able to read the Qur'an correctly and properly according to the rules of Tajwid. As Allah SWT says in Surah Al-A'raf verse 52.

وَلَقَدْ جِئْنٰهُمْ بِكِتٰبٍ فَصَّلْنٰهُ عَلٰى عِلْمٍ هُدًى وَّرَحْمَةً لِّقَوْمٍ يُّؤْمِنُوْن

Translate: "We have certainly brought them a Book which We explained with knowledge—a guide and mercy for those who believe." (Tafsir Qur'an Per Kata, 2009).

Muslims are inseparable from learning the holy book of the Qur'an, which is the primary and fundamental source of law. It is very important to study it. To have a deep understanding of its recitation aspects, mastery and application of Tajwid knowledge are necessary. Based on this, to support the Islamic Education learning process to be better, more effective, engaging, efficient, and not boring, suitable media are needed so that Islamic religious education can be absorbed well by students. Media serve as a means of communication between teachers and students in delivering teaching materials to students using appropriate aids that suit the needs, situations, and conditions in learning.

After using learning media, students are expected to absorb the materials conveyed by the teacher. Additionally, learning media are expected to capture students' attention and enhance their enthusiasm for learning, thus achieving the desired goals of the learning process. If this potential develops well through the learning media used, students will be able to control their cognitive potential.

The cognitive domain arranges skills according to the intended goals. Thinking processes illustrate the stages of thinking that students must master in order to apply theories into actions (Ina Magdalena et al., 2020). Based on Bloom's revised taxonomy, cognitive thinking abilities can be classified into six categories consisting of remembering, understanding, applying, analyzing, evaluating, and creating (Dwi Oktaviana and Iwit Prihatin, 2018).

It should be noted that students with good cognitive abilities will have strong beliefs and understanding. If grounded in knowledge and understanding of Islamic teachings and values, students can realize good religious attitudes in daily life (Wijaya et al., 2020). Meanwhile, students with poor cognitive abilities will have weak beliefs and understanding because their knowledge and understanding of Islamic teachings and values are insufficient (Rahmahyani Rizky, 2020).

Based on observations and interviews with Islamic Education teachers in junior high schools, it is evident that students' abilities in reading the Qur'an are still very inadequate. This

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can be seen from students' knowledge of the rules of recitation in the Qur'an. Although Islamic Education lessons on Tajwid rules have been implemented, the cognitive abilities of students (especially in terms of remembering, understanding, and applying) in applying Tajwid knowledge to Qur'anic recitation according to good and correct rules are still relatively low. This condition is due to several factors that hinder the learning process, including the limited time for religious education, especially on Qur'anic discussions, lack of interest among students in Islamic Education, students' abilities to grasp or understand diverse learning, insufficient availability of supporting teaching books and media, and the use of teaching methods that lack variation.

Given the importance of media in the learning process, one effort that can be made by a teacher to make students more interested and able to absorb or understand lessons, especially in Islamic Education, is to create an attractive learning condition using flashcard learning media. According to Asyhar as cited in Budi, flashcards belong to the category of graphic media or two-dimensional media, which are media with length and width dimensions specifically designed to communicate educational messages. This media can be used to express facts through the use of words, numbers, symbols, or icons. This statement clearly indicates that flashcards are suitable media for Islamic Education, especially in sub-discussions of Tajwid laws such as tafkhim and tarqiq. Flashcards can help develop students' memory of Arabic letters as they are presented attractively through illustrated cards with captions or descriptions.

Based on this background, the author focuses on researching the effectiveness of using Tajwid law flashcard media (with a sub-discussion of tafkhim and tarqiq reading laws according to the second-semester learning material for the academic year 2022/2023) on the cognitive abilities of students in Islamic Education classes, with the research subject being eighth-grade junior high school students.

METHODS OF RESEARCH

The type of research used in this study is pre-experimental using a one-group pre-test and post-test model, namely by comparing the results before treatment and after treatment. This study only uses one group without a comparison group. The research design can be seen in Figure 1.

$$O_1 \ x \ O_2$$
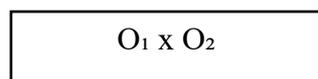
Figure 1 One group pre-test and post-test design

Description: O_1: Pre-test score (before treatment)
O_2: Post-test score (after being treated)

RESULTS AND DISCUSSION

The data analysis in this research is based on data obtained from the research activity titled "The Effectiveness of Using Tajwid Rule Flashcards on the Cognitive Abilities of Eighth-Grade Islamic Education Students". To collect data for this research, written test sheets (multiple choice) and oral tests (Qur'an reading) were used. This research was conducted over 4 meetings. In the first meeting, students were given a pretest without any prior treatment. In

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the second and third meetings, learning activities using flashcard media were conducted. Then, in the fourth meeting, to assess students' learning outcomes after the treatment, a posttest was administered. After the data were collected, they were analyzed descriptively and inferentially.

It can be observed from the descriptive analysis results that before being treated using Tajwid rule flashcards, the scores of the written pretest for class VIII A students ranged from the lowest score of 35 to the highest score of 65, with an average of 46.69 and a standard deviation of 10.403. Meanwhile, after being treated using Tajwid rule flashcards, the scores of the written posttest for students increased from the lowest score of 65 to the highest score of 90, with an average of 77.50 and a standard deviation of 8.756.

Furthermore, before being treated using Tajwid rule flashcards, the scores of the oral pretest for class VIII A students ranged from the lowest score of 45 to the highest score of 75, with an average of 59.19 and a standard deviation of 10.846. Meanwhile, after being treated using Tajwid rule flashcards, the scores of the oral posttest for students increased from the lowest score of 70 to the highest score of 95, with an average of 81.13 and a standard deviation of 8.563. A comparison of pretest and posttest results, both written and oral can be seen in Figure 2.
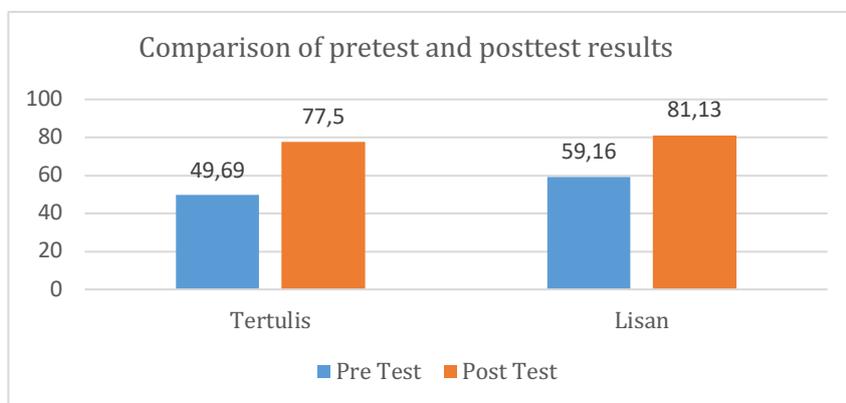
Figure 2 Comparison of pretest and posttest results

The difference in cognitive learning improvement between pretest and posttest among students is attributed to the treatment provided. Before receiving treatment using Tajwid rule flashcards, students found it difficult to differentiate between the rules of tafkhim (thickening) and tarqiq (thinness) on the letters lam and ra', resulting in lower test scores. However, after receiving treatment using Tajwid rule flashcards specifically for the rules of tafkhim and tarqiq on the letters lam and ra', students' cognitive abilities improved, as evidenced by their ability to remember, understand, and apply Tajwid knowledge correctly and effectively, both in written and oral forms. This aligns with the cognitive taxonomy theory proposed by Benjamin S. Bloom, stating that quality education is achieved by applying all levels of cognitive domains in every learning process. The cognitive domain involves behaviors that emphasize intellectual aspects, such as knowledge, and thinking skills encompassing lower-order thinking skills (LOTS) including remembering (C1), understanding (C2), and applying (C3) (Nabilah et al., 2020).

After conducting descriptive data analysis, inferential data analysis was performed, namely hypothesis testing. However, before hypothesis testing, normality and homogeneity tests were conducted using the SPSS for Windows program. Once the accepted hypothesis was

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determined, the effectiveness of the flashcard media used was tested using the n-gain test.

Normality Test

To determine whether a data is normal or not, a normality test is conducted. Normality testing is performed using SPSS based on the One-Sample Kolmogorov-Smirnov test with a significance level of 5% or 0.05. If the P-value is ≥ 0.05, then the distribution is normal, while if the P-value is < 0.05, then the distribution is not normal. The results of the normality test on the data can be seen in table 1.

Table 1 Normality Test Results

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Test Results	Written Pretest	.176	16	.200	.903	16	.089
	Written Posttest	.179	16	.180	.912	16	.126
	Oral Pretest	.131	16	.200	.908	16	.109
	Oral Posttest	.177	16	.192	.904	16	.094

The normality test indicates that the research data is normally distributed. This is based on the testing criteria that if the significance value is ≥ 0.05, then the distribution is normal, while if the significance value is < 0.05, then the distribution is not normal. Looking at the significance values of the written and oral pretests, which are 0.200, it is known that the value of 0.200 > 0.05. The significance value of the written posttest is 0.180 > 0.05, and the significance value of the oral posttest is 0.192 > 0.05, indicating that the data is considered normal.

Homogeneity Test

Table 2 Homogeneity Test Results

	Levene Statistic	df1	df2	Sig.
Based on Mean	.202	1	30	.656
Based on Median	.335	1	30	.567
Based on Median and with adjusted df	.335	1	27.497	.567
Based on trimmed mean	.221	1	30	.642

The homogeneity test is conducted to determine whether multiple data sets have the same variance. The results of the homogeneity test in Table 2 indicate that the research data is homogeneous. This is based on the homogeneity testing criteria that if the significance value is ≥ 0.05, then the distribution is homogeneous, while if the significance value is < 0.05, then the distribution is not homogeneous. Looking at the results of the homogeneity test, it is known that the significance value for the pretest and posttest is 0.656, which means > 0.05, indicating homogeneity.

Hypothesis Test

After the prerequisite tests have been conducted and proven that the processed data are normally distributed and homogeneous, the hypothesis testing is then proceeded. Hypothesis testing is performed to determine whether the proposed hypothesis can be accepted or rejected. The decision-making criteria are as follows: if

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sig. $\geq$ 0.05, then H_0 is accepted and H_1 is rejected, whereas if sig. < 0.05, then H_0 is rejected and H_1 is accepted. Here are the explanations regarding H_0 and H_1:

H_0 = There is no effectiveness of using Tajwid rule flashcard media on the cognitive abilities of eighth-grade Islamic Education students.

H_1 = There is effectiveness of using Tajwid rule flashcard media on the cognitive abilities of eighth-grade Islamic Education students.

After the results of the written and oral pretests and posttests are processed using SPSS for Windows version 25, the results can be seen in Table 3.

Table 3 Hypothesis Test Results

		Paired Differences					T	Df	Sig.2-tailed
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Written - Post-Written	-27.813	2.562	.640	-29.178	-26.447	-43.428	15	.000
Pair 2	Pre-Oral - Post-Oral	-21.938	3.530	.883	-23.819	-20.056	-24.857	15	.000

Table 3 shows that the significance value (2-tailed sig) is 0.000. Upon examining the results of the hypothesis test, it is known that 0.000 < 0.05, therefore it can be concluded that H_0 is rejected and H_1 is accepted. This means that there is effectiveness in using Tajwid rule flashcards on the cognitive abilities of eighth-grade Islamic Education students.

N-Gain Test

Based on the calculation results of the n-gain test, it is indicated that the average n-gain score for the experimental class using Tajwid rule flashcards in the written test is 56.9746%, or rounded to 57%, categorized as quite effective, and the average n-gain score in the oral test is 56.2785%, or rounded to 56%, also categorized as quite effective. Therefore, it can be concluded that the use of Tajwid rule flashcards is quite effective for the cognitive abilities of eighth-grade Islamic Education students in PAI subjects at junior high school. The detailed results of the n-gain test on flashcard media can be seen in Table 4.

Table 4 N-Gain Test Results

Category	Written	Oral
Mean (n-gain%)	56,9746	56,2785
Minimum	45,45	44,44
Maximum	71,43	80,00

The use of Tajwid rule flashcards in the Islamic Education subject (PAI) subtopics of Tajwid rules tafkhim and tarqiq on the letters Lam and Ra' has proven to be quite effective. This is evidenced by the students' active participation and enthusiasm in the

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learning process, which can accelerate the students' understanding and retention of the taught material. Additionally, the Tajwid rule flashcard media also facilitates the researchers in delivering the material.

CONCLUSIONS

There is a significant difference in the cognitive abilities of students after using Tajwid rule flashcard media in Islamic Education (PAI) class VIII SMP. This can be seen from the results of the written and oral tests before and after the treatment, with an average pretest score of 49.69 increasing to 77.5 in the written posttest and an average pretest score of 59.19 increasing to 81.13 in the oral posttest. There is effectiveness in using Tajwid rule flashcards on the cognitive abilities of students in Islamic Education (PAI) class VIII SMP. This can be seen from the paired sample t-test results showing a significance value of 0.000 < 0.05 for the pretest and posttest, thus it can be concluded that the accepted hypothesis is H_1. In the n-gain test, it is known that the use of Tajwid rule flashcards is classified as quite effective with an average n-gain of 56.97% for the written test and 56.27% for the oral test.

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