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Exploring the Efficacy of Quranic Arabic Corpus as an Instructional Tool to Enhance Nahwu Proficiency among Madrasah Students

Achmad Fudhaili*

Universitas Islam Negeri Syarif Hidayatullah Jakarta, Indonesia

*Corresponding E-mail: fudhaili@uinjkt.ac.id

Abstract

This research aims to solve problems in Nahwu learning; the many students who find it difficult to apply Nahwu rules in Arabic texts, especially the Koran, require teachers to innovate information technology-based learning. Based on this, researchers will research the effectiveness of using the Quranic Arabic Corpus based on teaching materials and online learning media in making it easier for students to understand and analyse Nahwu grammar in Arabic. This research uses a quantitative approach with a True-Experimental design (experimental and control groups). The population of this research is students in the Aliyah class of the Fisabilillah Bekasi Islamic Boarding School. The sampling technique used was Simple Random Sampling Probability Sampling, with 36 students consisting of 18 experimental and 18 control class students. The data was calculated using the instrument validity test, the t-test normality test to prove the researcher's hypothesis and the N-Gain test to see the level of effectiveness. The data analysis technique uses hypothesis testing with the T-test. The research results were seen from how big the difference was in the post-test results after using the Quranic Arabic Corpus between the experimental group and the control group and the students' responses based on the questionnaire distributed during the research. The results of this research are as follows: First, there is a statistical difference in the average scores in the experimental group and the control group in Nahwu learning after using the Quranic Arabic Corpus; there is a significant difference, namely 67.22 for the experimental class while, for the control class it is 44.72. The two calculated "T" arithmetic results (4.48) are greater than the "T" table results (1.79) at the 5% significance level and (2.44) at the 1% significance level. So, the alternative hypothesis (H_a) is accepted, and the hypothesis (H_o) is rejected. Third, the students' responses were very good, and they agreed that using the Quranic Arabic Corpus in Nahwu learning was considered effective. Based on the results above, the researcher concluded that the use of teaching materials as well as learning media based on the Quranic Arabic Corpus was effectively implemented in Nahwu learning.

Keywords: Qur'anic Arabic Corpus, Learning Media, Nahwu Science, Arabic Language Learning.

Abstrak

Penelitian ini bertujuan untuk memecahkan permasalahan dalam pembelajaran Nahwu, banyaknya siswa yang merasa kesulitan menerapkan kaidah Nahwu dalam teks berbahasa arab khususnya Alquran menuntut para pengajar untuk melakukan inovasi pembelajaran berbasis teknologi informasi. Berdasarkan hal tersebut peneliti akan melakukan penelitian tentang efektivitas penggunaan Quranic Arabic Corpus berbasis bahan ajar dan media pembelajaran online dalam mempermudah siswa memahami dan menganalisis gramatika Nahwu dalam bahasa Arab. Penelitian ini menggunakan pendekatan kuantitatif dengan desain True-Exsperimen (kelompok eksperimen dan control). Populasi penelitian ini yaitu santri kelas Aliyah Pondok Pesantren Fisabilillah Bekasi. Teknik sampling yang digunakan adalah Probability Sampling jenis Simple Random Sampling, dengan jumlah 36 siswa yang terdiri dari 18 santri kelas eksperimen dan 18 santri kelas control. Data dihitung menggunakan uji validitas instrumen, uji normalitas uji-t untuk membuktikan hipotesis peneliti dan uji N-Gain untuk melihat tingkat keefektifannya. Teknis analisis data menggunakan uji hipotesis dengan uji-T. Hasil penelitian dilihat dari seberapa besar perbedaan hasil post-test setelah menggunakan Quranic Arabic Corpus antara kelompok eksperimen dan kelompok kontrol serta respon dari santri berdasarkan angket yang telah disebarakan pada saat penelitian. Hasil dari penelitian ini yaitu: Pertama terdapat perbedaan secara perhitungan statistik dalam nilai rata-rata pada kelompok eksperimen dan kelompok kontrol pada pembelajaran Nahwu setelah menggunakan Quranic Arabic Corpus terdapat perbedaan yang signifikan yaitu 67,22 untuk kelas eksperimen sedangkan kelas kontrol yaitu 44,72. Kedua hasil aritmatika "T" hitung (4,48) lebih besar dari hasil "T" tabel (1,79) pada taraf signifikansi 5% dan (2,44) pada taraf signifikansi 1%. Maka, hipotesis alternatif (H_a) diterima dan Hipotesis (H_o) ditolak. Ketiga, respon para santri sangat baik dan menyetujui bahwa penggunaan Quranic Arabic Corpus dalam pembelajaran Nahwu dinilai efektif. Berdasarkan hasil diatas, peneliti menyimpulkan bahwa penggunaan bahan ajar sekaligus media pembelajaran berbasis Quranic Arabic Corpus efektif diterapkan dalam pembelajaran Nahwu.

Kata Kunci: Qur'anic Arabic Corpus, Media Pembelajaran, Ilmu Nahwu, Pembelajaran Bahasa Arab.

A. Introduction

Understanding the Arabic language's intricate grammatical rules and unique sentence structures is essential, particularly for mastering Nahwu knowledge (Punawan, 2020a). However, students often encounter significant challenges applying these rules, especially when reading the Koran and Arabic literature (Bernikova, 2023). Despite the critical importance of this knowledge, initial research suggests that traditional, less dynamic teaching methods, coupled with insufficient integration of technology in learning media, render the Nahwu learning process less engaging and effective. This highlights a crucial gap in current educational practices that warrants further investigation and innovative solutions.

In the context of effective learning, Kyriacou emphasised that learning success is measured by achieving the goals expected by teachers and students (Kyriacou, 2018). A key factor in effective learning is a teacher who has clear learning goals and can plan and deliver achievable learning experiences (Wang, 2020). Therefore, it is necessary to develop learning

media to integrate teaching materials with technology, help students understand the material more easily, and provide ease of practice in various situations.

As Kemp and Dayton (1985) explain, learning has an important role in motivating students and improving their learning achievement (Fudhaili & Maisaroh, n.d.). Therefore, this research tries to implement the Quranic Arabic Corpus as a learning medium. The Quranic Arabic Corpus is a source of linguistic analysis of the Koran that can be accessed via the Internet. Through this website and application, students can learn Arabic grammar related to verses of the Koran more effectively (Ali et al., 2020).

Quranic Arabic Corpus provides various features, such as word-by-word translation, a dictionary of Qur'anic vocabulary, grammar trees, concepts and word structures, and other Qur'anic rules (Kropp, 2021). The hope is that by utilising these features, students can understand and apply Arabic grammar more easily and quickly. The advantages of the Quranic Arabic Corpus lie in its attractive appearance, complete features, and accessibility via the Internet (Ali et al., 2020).

Several efforts have been made to improve students' understanding of Nahwu science lessons, such as the results of research by Husna et al., (2019), Huda, (2020) Machmudah & Khuzaimah, n.d. shows that learning media has a big influence on students' understanding in learning Nahwu science, both at junior high school level and at high school and university level (Mualimah et al., 2019; Muliansyah, 2018). Apart from using Quranic Arabic Corpus media, it has been proven to have a big influence on increasing students' understanding of the ontology of the Koran (Ali et al., 2020). Apart from that, until now, it hasn't been easy to find research on the use of Quranic Arabic Corpus media in teaching Nahwu science.

The lack of research on using Quranic Arabic Corpus media in learning Nahwu science is an interesting thing to research, especially for teachers, so they can develop various learning media to make it easier for students to understand lessons. This research analyses the effectiveness of using the Quranic Arabic Corpus in teaching Nahwu science to Madrasah Aliyah students at the Madrasah Pembangunan of Universitas Islam Negeri Syarif Hidayatullah, Jakarta. This research will open the horizons of knowledge regarding the role and influence of Quranic Arabic Corpus-based learning media in improving the quality of the world of Arabic language learning.

B. Method

This research uses a quantitative approach with a true-experiment design with a pretest-posttest control group design. In this research design, two groups are selected randomly (Veronica et al., 2022). The first group was given treatment (X), and the other

group was not. The group treated is called the experimental group, and the group that is not treated is called the control group.

1. Population and Sample

The population and sample of this research were Madrasah Aliyah students at Madrasah Pembangunan UIN Jakarta. Participants were selected randomly, with a total of 36 students. The experimental class sample was randomly selected with 18 students, and the other 18 students were made into the control class. Both groups were treated equally in learning Nahwu material using the Quranic Arabic Corpus as teaching material.

2. Sampling Techniques

The sampling technique used is Probability Sampling with the Simple Random Sampling type (Massey, 2016). In this technique, samples are taken randomly without paying attention to the strata in the population (Pahleviannur et al., 2022).

Random sampling can be done by randomly determining numbers, using a computer, or drawing lots (Queirós et al., 2017). Researchers use random numbers to determine the sample and divide it into experimental and control classes.

Table 1.1

Student data from Madrasah Aliyah Madrasah Pembangunan UIN Jakarta

Class	Amount
Experimental Class	18 People
Control Class	18 People
Total	36 People

3. Research Stages

The stages in the research carried out are as follows (Budidha & Kyriacou, 2019):

- a) Determine the sample from the predetermined population, namely students of Madrasah Aliyah Madrasah Pembangunan UIN Jakarta Aliyah class.
- b) Classify the samples into two groups, namely the experimental group and the control group.
- c) Give a pre-test, to measure variables that depend on the two groups, then calculate the average value.
- d) Providing treatment (X), namely teaching Nahwu using the Quranic Arabic Corpus as teaching material and media on the subject for a month at least 5 meetings
- e) Give a post-test. This test becomes material for analysis from which the average score of the subject will be calculated to determine the achievement achieved by the subject after receiving treatment.
- f) Calculate the difference between the pre-test and post-test results for each group.

- g) Using a statistical test to see whether the difference is significant or not using a different test, using the t-test statistic. If there is a significant difference between the experimental and control groups, the treatment given has a significant effect (Sari et al., 2022).

The form of experimental research design can be seen below:

Table 1.2

Pretest-Posttest Control Group Research Design

Class	Pre-Test	Treatment	Post-Test
Experimental Class	O^1	X	O^2
Control Class	O^3	-	O^4

Information:

X: Learning using QAC media and teaching materials

- : Learning using ordinary media and teaching materials used

O1: Pre-test for experimental class

O2: Post-test for the experimental class

O3: Pre-test for control class

O4: Post-test for the control class

4. Data Collection Techniques

a) Questionnaire

Researchers use a questionnaire model to collect data to determine the response of the research object after using the Quranic Arabic Corpus in Nahwu learning. The measurement uses a Likert scale; with a Likert scale, the variables to be measured are then described into variable indicators, and then these indicators are used as a starting point for compiling instrument items, which can be in the form of statements or questions.

The answer to each instrument item using a Likert scale has a graduation from very positive to very negative in the form of words such as strongly agree, agree, doubtful, disagree, and strongly disagree. (Sugiyono, 2019).

For the purposes of quantitative analysis, the answers to the questionnaire are scored according to conditions:

No.	Answer	Score
1	Agree/always/very positive	5
2	Agree/often/positive	4
3	Undecided sometimes/neutral	3
4	Disagree/hardly negative	2
5	Strongly disagree/never	1

Based on the data obtained, the interval data can be analysed by calculating the average answer based on the scoring of each answer from the respondent.

b) Test

This research uses a written test. The tests in question are pre-test and post-test, namely tests given before and after conducting experiments to obtain data about the effectiveness of using the Quranic Arabic Corpus in Nahwu learning.

5. Research Instrument

The research instruments to measure the effectiveness of the influence of using the Quranic Arabic Corpus in learning Nahwu science are the researchers themselves, a questionnaire sheet, and a test sheet where experts in the Nahwu science field have validated the questions contained in the sheet.

Research tests are divided into three types: facts, opinions, and abilities (Aksara, 2021). Test instruments are used to measure the presence or absence of the ability of the object under study. The test instrument is a pre-test and post-test question sheet distributed directly at the specified test time. These sheets are used to determine students' abilities before and after being given treatment, namely using the Quranic Arabic Corpus as teaching material and media in Nahwu learning.

The form of test used is a short description arranged based on an instrument grid, which includes student cognitive C1 (knowledge), C2 (understanding), and C3 (application).

6. Data Analysis Techniques

Analysis of this research data uses the T-Test to test and determine the normality of the values resulting from the test (Ross & Willson, 2017a).

Here's the formula:

$$t_0 = \frac{M_2 - M_1}{\sqrt{\left(\frac{\sum X_1^2 + \sum X_2^2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

Information:

t_0 : Degree of differentiation

M_1 : Average value of the experimental class

- M2 : Average value of the control class
- ΣX_{12} : Number of experimental class value data
- ΣX_{22} : Number of control class value data
- N1 : Many experimental class samples
- N2 : Many controls class samples

Data analysis of experimental class student grades, interpretation of data analysis is as follows:

1. The null hypothesis is rejected if the calculated result t_0 is greater than the t-table. This means that the difference between the two groups is statistically significant.
2. The null hypothesis is accepted if the calculated result t_0 is smaller than the t-table. This means that the difference between the two groups is not statistically significant.

As for answering the problem formulation, the two researchers used a scale Skala Likert.

1. Statistical Hypothesis

Hypotheses need to be tested to find out research results. There are two possibilities for the hypothesis's results: the proposed hypothesis is accepted or rejected based on certain criteria (Ross & Willson, 2017b).

After analysing the data, the researcher presented two hypotheses in this study, namely:

1. Alternative Hypothesis (H_a): Using the Quranic Arabic Corpus as teaching material and Nahwu learning media has a statistically significant effect.
2. Null Hypothesis (H_0): Using the Quranic Arabic Corpus as teaching material and Nahwu learning media has no statistically significant effect.

C. Result and Discussion

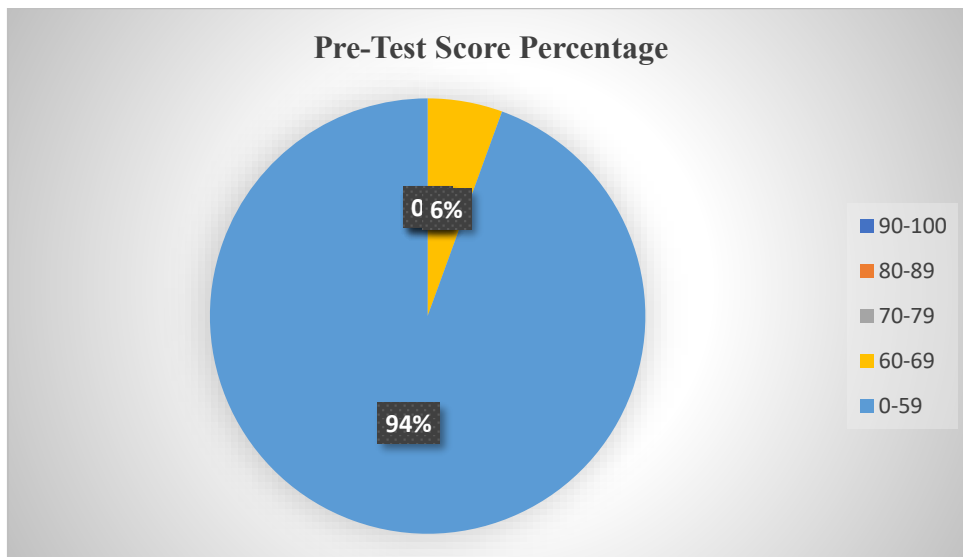
1. Result

Different results were obtained after the researchers learned Nahwu using the Quranic Arabic Corpus. Researchers collect scores from the experimental group and the control group. The test results in the experimental group are as follows:

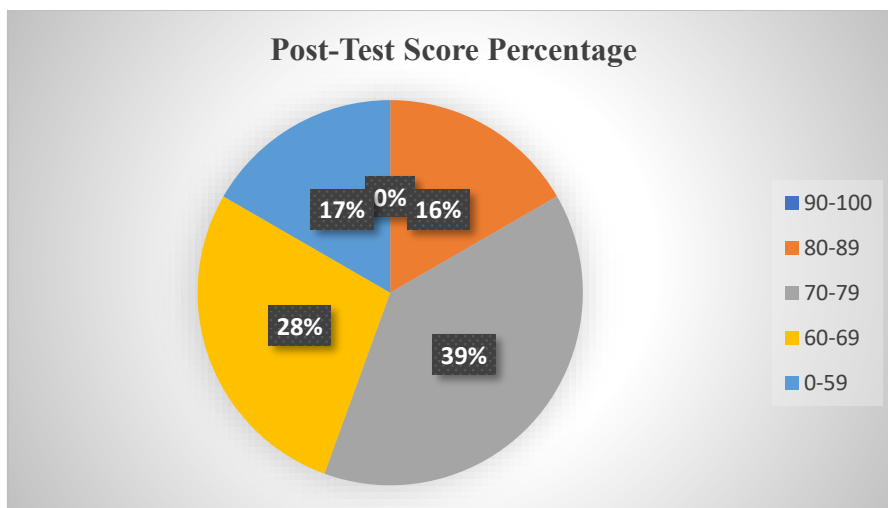
Table 1.3

Pre-test and post-test results of the experimental group

No	Name		Class	Pre-Test Score	Post-Test Score	Gained Score
1	Aditia	أديتيا	Aliyah	55	65	10



Based on this chart, most of the students and students got lower grades. The percentage of results obtained from the pre-test for the experimental group was 94%, getting a score of less than 60%, and 0.6%, getting a score of 60.



a) Description of Control Class Learning Assessment Results

The test results in the control group are as follows:

Table 1.4

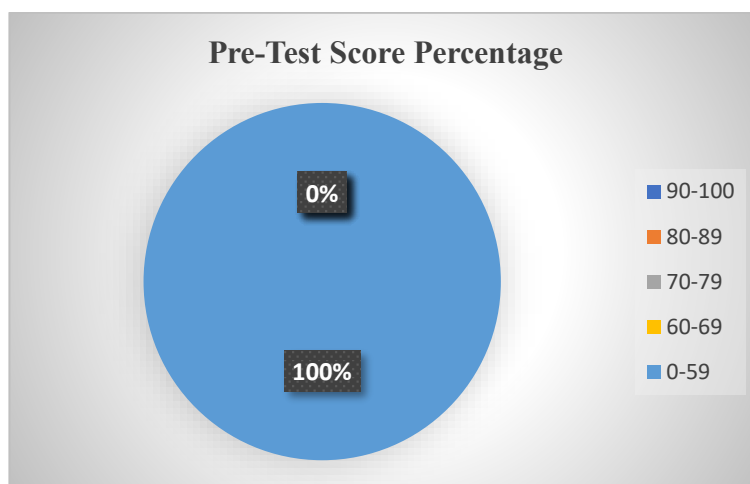
Control group pre-test and post-test results.

No	Name	Class	Pre-Test Score	Post-Test Score	Gained Score
1	Aldian	Aliyah	45	40	-5
2	Dio Rakha Saputra	Aliyah	50	50	0
3	Fajar Rudiansyah	Aliyah	35	40	5
4	Faqih Aldo F	Aliyah	50	30	-20

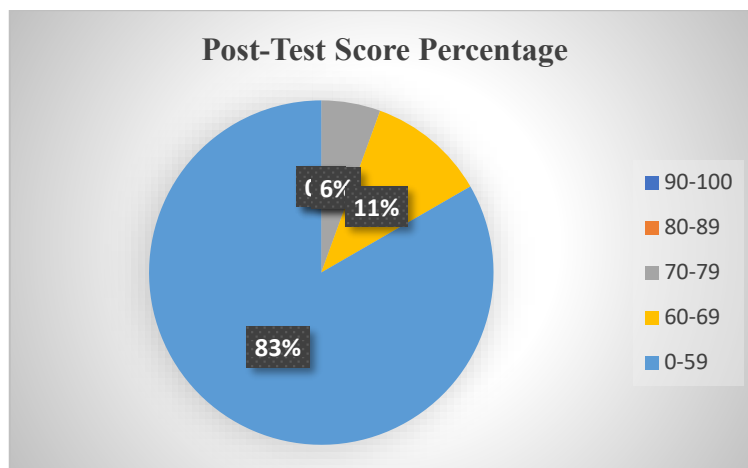
5	Kanih Nopiyah	Aliyah	55	65	10
6	Khaira F A	Aliyah	30	75	45
7	Khoirul Ahmad S	Aliyah	50	50	0
8	M Refi	Aliyah	30	40	10
9	Maytwo Ulansari	Aliyah	30	45	15
10	Muhammad Andika	Aliyah	50	30	-20
11	Muhammad Ramadi	Aliyah	45	35	-10
12	Panca Maulana	Aliyah	45	40	-5
13	Pina Herlinah	Aliyah	55	65	10
14	Rama Aditya	Aliyah	30	30	0
15	Rizky Ariansyah	Aliyah	55	40	-15
16	Romadona	Aliyah	50	35	-15
17	Safrizal	Aliyah	55	55	0
18	Wildan Afriyani	Aliyah	45	40	-5
Average			44,72	44,72	0,00

From the pre-test and post-test results in the control class (i.e., the class that did not use the Quranic Arabic Corpus as teaching materials and learning media), the researchers concluded that there was no decrease or increase in scores in the control class. This can be seen from the average score of the pre-test and post-test. The average pre-test score is **44.72**, the score is "poor", the post-test score is **44.72**, and the predicate is "poor".

The following is a percentage chart of the pre-test and post-test scores:



Based on this chart, all students got lower marks. The percentage of results obtained from the pre-test for the 100% control group scored less than 60.



b) Hypothesis Testing

1) Discussion of Test Results

After the researcher collected the data and analysed it using the T-test to determine the effectiveness of using the Quranic Arabic Corpus as teaching material and Nahwu learning media, the researcher compared the test results between the experimental class and the control class, which were then presented in the table as follows:

Table 1.5

Statistical calculations for average and deviation scores

No	Gained Score		X ₁	X ₂	X ₁ ²	X ₂ ²
	X ₁	X ₂	(X ₁ -M ₁)	(X ₂ -M ₂)		
1	5	0	-15.1	0	228.01	0
2	10	-15	-10.1	-15	102.01	225
3	25	10	4.9	10	24.01	100
4	15	0	-5.1	0	26.01	0
5	5	-20	-15.1	-20	228.01	400
6	30	45	9.9	45	98.01	2025
7	22	-5	1.9	-5	3.61	25
8	25	-5	4.9	-5	24.01	25
9	35	0	14.9	0	222.01	0
10	20	-20	-0.1	-20	0.01	400
11	5	0	-15.1	0	228.01	0
12	15	-10	-5.1	-10	26.01	100
13	35	-5	14.9	-5	222.01	25
14	5	10	-15.1	10	228.01	100
15	30	15	9.9	15	98.01	225
16	20	10	-0.1	10	0.01	100
17	40	-15	19.9	-15	396.01	225
18	20	5	-0.1	5	0.01	25
Σ	362	0	0.2	0	2153.78	4000
M	20.1	0.0	0.0	0.0	119.7	222.2

After the researcher collected student scores and determined the average value of student achievement (denoted by X_2 and.

Here are the details:

$$t_0 = \frac{M_2 - M_1}{\sqrt{\left(\frac{\sum X_1^2 + \sum X_2^2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

First, researchers look for the M_1 value and M_2 value, which are as follows:

$$M_1 = \frac{\sum X_1}{N_1} = 20.11$$

$$N_1$$

$$M_2 = \frac{\sum X_2}{N_2} = 0$$

$$N_2$$

Next, the researcher fills in the t_0 formula listed previously with the existing values.

$$X_1 = X_1 - M_1$$

$$X_2 = X_2 - M_2$$

$$\sum X_1^2 = 2153.78$$

$$\sum X_2^2 = 4000$$

$$N_1 = 18$$

$$N_2 = 18$$

$$t_0 = \frac{M_2 - M_1}{\sqrt{\left(\frac{\sum X_1^2 + \sum X_2^2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

$$t_0 = \frac{20,11 - 0}{\sqrt{\left(\frac{2153,78 + 4000}{18 + 18 - 2}\right) \left(\frac{18 + 18}{18 \cdot 18}\right)}}$$

$$t_0 = \frac{20,11 - 0}{\sqrt{(180,99)(0,11)}}$$

$$t_0 = \frac{20,11}{4,48}$$

$$t_0 = 4,48$$

From the data analysis, researchers found that the T-test = 4.48, and to understand the interpretation of the results of the middle group, they must know the degrees of freedom (Degree of Freedom) using the df law (Vieira, 2016).

$$T\text{-table } (df, \alpha)$$

$$= N1 + N2 - 2$$

$$= 18 + 18 - 2$$

$$df = 34$$

$$\text{Table } 34 - 5 \% = 1.69$$

$$\text{Table } 34 - 1 \% = 2.44$$

The resulting degrees of freedom (df) from the table is 34.

Dari data analysis, researchers found that the T-test = 4.48, and to find out the interpretation of the middle group data results, they must know the degrees of freedom (Degree of Freedom) using the df law (Ding et al., 2016).

The resulting degrees of freedom (df) from the table is 34.

Researchers obtained results of significance level 5 = 67.1% and significance level 1 = 39.2%.

The interpretation of the data analysis is as follows:

1. The null hypothesis is rejected if the calculated result t_0 is greater than the t-table. This means that the difference between the two groups is statistically significant.
2. The null hypothesis is accepted if the calculated result t_0 is smaller than the t-table. This means that the difference between the two groups is not statistically significant.

Based on the description above, the researcher knows that the calculated result of t (t_0) is greater than t table (tt), and this is proof that:

The null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted. Therefore, this score will be used to state that there is a statistically significant influence on the use of the Quranic Arabic Corpus as teaching materials and Arabic language learning media.

2) Kolmogorov-Smirnov distribution normality test

The Kolmogorov-Smirnov test tests the null hypothesis, which states that two independent samples come from groups with identical locations and distributions. (Usman, 2016). Therefore, researchers tested the data in the form of normality using the Kolmogorov-Smirnov method with the help of the IBM SPSS 22 program.

Table 1.6

Kolmogorov-Smirnov distribution normality test table

Tests of Normality

Class		Kolmogorov-Smirnov ^a			Shapiro-Wilk
		Statistic	Df	Sig.	Statistic
Student learning outcomes	Pre-Test Experiment	.208	18	.039	.923
	Post-Test Experiment	.192	18	.078	.886
	Pre-Test Control	.234	18	.010	.828
	Control Post-Test	.253	18	.003	.882

Based on the table above, the data shows that the pre-test significance value for the experimental group is 0.039, smaller than 0.05, and the post-test significance value for the experimental group is 0.078, greater than 0.05. Because the pre-test significance value for the control group is 0.010, which is smaller than 0.05, and the post-test significance value for the control group is 0.003, which is smaller than 0.05, this means that the data is not normally distributed because the significance value of the pre-test for the experimental group and the pre-test for the control and control group post-test less than 0.05. Researchers used non-parametric statistical analysis of the Mann-Whitney test to test the hypothesis (de Winter & Dodou, 2019).

3) Hypothesis testing using the Mann-Whitney test.

The Mann-Whitney test is used to test the null hypothesis, which states that there is no real difference between the two data sets and that the data is taken from unrelated samples. Analysis using the Mann-Whitney method shows the average:

Table 1.7

Mann-Whitney hypothesis testing results

Test Statistics^a

	Nahwu Learning Results
Mann-Whitney U	36.500
Wilcoxon W	207.500
Z	-4.003
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

a. Grouping Variable: Class.

b. Not corrected for ties.

The Mann-Whitney test results show that the importance value (tailed-2) is equal to 0.00, which means that understanding of grammar lessons increases after implementing the Quranic Arabic Corpus as educational material and teaching media for grammar. Therefore, the null hypothesis (H_0) is assumed to be rejected and the alternative hypothesis (H_a) is accepted (Usman, 2016).

4) N-Gain Test

After getting the pre and post-test scores, the researcher analysed the scores obtained. The analysis used is the normal gain test. This test determines the effectiveness of using the Quranic Arabic Corpus. Researchers carried out a normal gain test with the help of the IBM SPSS 22 program (Sesmiyanti et al., 2019).

Tabel 1.8

N-Gain Test Results

Case Processing Summary

		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
N Gain Percent	Experiment	18	100.0%	0	0.0%	18	100.0%
	Control	18	100.0%	0	0.0%	18	100.0%

Descriptives

Class			Statistic	Std. Error	
N Gain Percent	Experiment	Mean	62.1393	7.17528	
		95% Confidence Interval for Mean	Lower Bound	47.0008	
			Upper Bound	77.2778	
		5% Trimmed Mean	62.8708		
		Median	68.7500		
		Variance	926.723		
		Std. Deviation	30.44213		
		Minimum	11.11		
		Maximum	100.00		
		Range	88.89		
		Interquartile Range	46.43		
		Skewness	-.550	.536	
		Kurtosis	-.935	1.038	
		Control	Mean	-4.6473	9.69337

95% Confidence Interval for Mean	Lower Bound	-	25.0985	
	Upper Bound		15.8039	
5% Trimmed Mean			-6.4599	
Median			.0000	
Variance			1691.304	
Std. Deviation			41.12547	
Minimum			-66.67	
Maximum			90.00	
Range			156.67	
Interquartile Range			56.43	
Skewness			.314	.536
Kurtosis			.303	1.038

It can be seen from the results shown by the secondary ratio N-Gain value of 62.13%, meaning that Arabic-Qur'an language blogs are quite effective as teaching materials and grammar teaching facilities (Aziz et al., 2021).

This research shows that teaching materials and Quranic Arabic Corpus learning media are effectively applied in teaching Nahwu. This can be seen from the increase in knowledge and post-test results of the experimental group in Nahwu learning, which researchers have tested. There was a statistical difference between the experimental and control groups in the average value of Nahwu learning after using the Quranic Arabic Corpus. The average value for the experimental group is 67.22, while the average value for the control class is 44.72. The calculated "T" arithmetic result (4.48) is greater than the "T" table result (1.79) at the 5% significance level and (2.44) at the 1% significance level. So, the alternative hypothesis (Ha) is accepted, and the hypothesis (Ho) is rejected (Siebert & Ellenberger, 2020).

This research aligns with the findings of Chernozhukov et al. (2018), which emphasize the importance of using dynamic and technology-integrated teaching methods to enhance student engagement and learning outcomes. However, despite the significant improvement observed, it cannot be said that using the Quranic Arabic Corpus in Nahwu learning is truly effective or in the very effective category because the experimental and control group's post-test results have not yet reached the ideal score. Based on the results of the N-Gain test using IBM SPSS 22, the average value of the experimental class was 62.13%, which means that the Quranic Arabic Corpus as teaching material and learning media is only at a level that is quite effective for use in Nahwu learning (Fudhaili, 2022; Wahab et al., 2021).

Integrating the Quranic Arabic Corpus into Nahwu teaching aligns with current educational theories advocating for the use of technology in the classroom. It underscores the necessity of evolving pedagogical approaches to meet contemporary educational needs. According to Vygotsky's socio-cultural theory, learning is a social process, and tools such as the Quranic Arabic Corpus can serve as mediators in this process, facilitating a deeper understanding of complex grammatical structures through interactive and engaging means. By incorporating such digital resources, educators can create more dynamic and student-centred learning environments, which is particularly crucial in subjects that students traditionally find challenging (Punawan, 2020b).

Furthermore, the observed statistical differences between the experimental and control groups highlight the effectiveness of the Quranic Arabic Corpus as a supplementary learning tool. This aligns with the cognitive theory of multimedia learning proposed by Mayer (2009), which posits that well-designed multimedia resources can enhance learning by presenting easier information for students to process and understand (Surkyn et al., 2019). The significant improvement in the experimental group's post-test scores suggests that the Quranic Arabic Corpus may help students internalise Nahwu rules more effectively than traditional methods alone (Supardi et al., 2022). However, the study also indicates that there is still room for improvement, as the scores have not reached an ideal level.

From a psychological perspective, integrating the Quranic Arabic Corpus into Nahwu learning has several significant implications for student engagement and motivation. One of the primary benefits is the potential to increase intrinsic motivation. According to Deci and Ryan's Self-Determination Theory (2006), students are more likely to be motivated and engaged in learning when they experience a sense of autonomy, competence, and relatedness. The interactive nature of the Quranic Arabic Corpus allows students to explore Nahwu rules at their own pace and receive immediate feedback, enhancing their sense of autonomy and competence.

Additionally, multimedia and interactive elements can cater to different learning styles and preferences, making the learning process more personalised and effective. Paivio's (2014) dual coding theory suggests that information presented in both verbal and visual formats can enhance learning and memory retention. The Quranic Arabic Corpus can help students better understand and retain complex grammatical rules by providing textual explanations, visual representations, and interactive exercises. This multi-modal approach can particularly benefit students who struggle with traditional text-based learning methods.

Moreover, integrating multimedia elements within the Quranic Arabic Corpus aligns with Mayer's (2019) cognitive theory of multimedia learning. This theory posits that learners understand and remember information more effectively when presented in visual and verbal formats. By combining textual explanations with visual aids and interactive exercises, the Quranic Arabic Corpus caters to different cognitive processes, enhancing the depth and retention of learning. This multi-modal approach can be particularly beneficial for students struggling with traditional text-based learning methods, providing various ways to engage with and internalise the content.

The interactive nature of the Quranic Arabic Corpus also fosters active learning, which is crucial for cognitive development. Active learning requires students to engage with the material actively through problem-solving, critical thinking, and application of concepts. By enabling students to interact with the material and receive real-time feedback, the Quranic Arabic Corpus encourages a deeper cognitive engagement with Nahwu rules. This engagement can lead to better comprehension and retention of grammatical structures, as students are not merely passive recipients of information but active participants in their learning process.

Understanding Nahwu is fundamental for students aiming to comprehend the Quran deeply. Nahwu, the grammar and syntax of the Arabic language, provides the structural framework necessary for interpreting the meanings and nuances within the Quranic text. Mastery of Nahwu allows students to understand the precise meanings of verses, the relationships between words, and the intended messages of the Quran.

The Quran is written in classical Arabic, a language known for its richness and complexity. Each verse can contain multiple layers of meaning (Hasan & Sulaikho, 2020), which can only be accurately interpreted with a solid understanding of Nahwu. For example, word order in Arabic is more flexible than in many other languages, and the grammatical endings (*i'rab*) of words can change their meanings and functions within a sentence. Without knowledge of Nahwu, students might miss these subtle cues and misinterpret the text.

Furthermore, Nahwu helps us understand the rhetorical and stylistic devices used in the Quran. The Quran employs various linguistic techniques to convey its messages powerfully and memorably. These include ellipsis, metaphor, and emphasis, all of which require a good grasp of grammatical rules to be appreciated fully. For instance, understanding why certain words are placed at the beginning of a verse or why certain grammatical forms are used can provide insights into the emphasis and focus of the message (alaa Alhaidari & Aliwy, 2022).

By aiding in learning Nahwu, the Quranic Arabic Corpus directly supports students in their journey to understand the Quran better. By providing interactive and engaging ways to learn and apply Nahwu rules, this tool can help students build a strong grammatical foundation, which is essential for accurate Quranic interpretation. As students become more proficient in Nahwu, they are likely to find themselves more confident and motivated to engage with the Quranic text, leading

Furthermore, the use of such digital tools can have a significant impact on students' interest in learning Nahwu. According to the Expectancy-Value Theory (Eccles & Wigfield, 2002), students' motivation to learn is influenced by their expectations of success and the value they place on the task. By making learning more interactive and engaging, the Quranic Arabic Corpus can increase students' expectations of success, as they can see their progress and improvements through the immediate feedback provided. This positive reinforcement can boost their confidence and interest in continuing to learn Nahwu.

Integrating technology into learning can alleviate anxiety and boost students' confidence in their abilities. According to McKeachie et al. (2006), students often experience anxiety when dealing with challenging subjects, which can impede their performance. The Quranic Arabic Corpus provides a supportive learning environment that allows students to practice and enhance their skills without fearing judgment or failure. The immediate feedback and adaptive learning pathways offered by this digital tool help build student confidence and reduce anxiety, leading to better learning outcomes.

Psychologically, using the Quranic Arabic Corpus in Nahwu instruction significantly enhances student motivation, engagement, and confidence. This digital tool aids students in overcoming the complexities of mastering grammatical rules and improves their proficiency in Nahwu by creating an interactive and supportive learning environment. Future research should explore the psychological benefits of incorporating technology in education and determine best practices for integrating digital tools into language learning curricula (Saiegh-Haddad, 2022).

Moreover, using the Quranic Arabic Corpus in Nahwu instruction can significantly enhance student motivation, engagement, and confidence. This digital tool can help students overcome the challenges of mastering complex grammatical rules and improve their proficiency in Nahwu by providing an interactive and supportive learning environment. Future research should continue to explore the psychological benefits of

using technology in education and identify best practices for integrating digital tools into language learning curricula.

The novelty of this research lies in applying the Quranic Arabic Corpus as teaching materials and learning media in Nahwu teaching. The research results showed increased students' knowledge in this field and a significant statistical difference between the experimental group that used the Quranic Arabic Corpus and the control group. Even though it has yet to reach the ideal score, these results provide a new contribution regarding the effectiveness of using the Quranic Arabic Corpus in the context of Nahwu learning. This suggests a promising direction for future research and the potential for refining and optimising these methods to achieve higher levels of effectiveness and student performance in Nahwu learning.

The findings of this research call for a reassessment of current teaching methodologies and adopting more innovative and interactive learning tools. While the Quranic Arabic Corpus has shown promising results, further research is needed to explore its full potential and identify additional strategies to complement its use. For instance, integrating collaborative learning activities, where students can discuss and apply Nahwu rules in real time, may further enhance their understanding and retention. Additionally, longitudinal studies could provide insights into the long-term effects of using the Quranic Arabic Corpus on students' mastery of Nahwu.

Additionally, the results highlight the need for professional development programs for educators to integrate technology into their teaching practices effectively. Educators need to be well-versed in using digital tools like the Quranic Arabic Corpus to maximise their benefits in the classroom (Nurhayati, 2020). This professional development should include training on the technical aspects of these tools and the pedagogical strategies for their effective use.

D. Conclusion

Using the Quranic Arabic Corpus in this research as teaching material and learning media in Nahwu teaching has produced significant findings. The results of the N-Gain analysis show an increase of 62.13% in students' knowledge, indicating the effectiveness of the Arabic-Qur'an language blog as teaching material and a means of teaching grammar. The experimental group's post-test results show statistically significant differences from the control group. The mean value was significantly higher (67.22) than the control group's (44.72), illustrating that using the Quranic Arabic Corpus positively impacted understanding and mastery of Nahwu material. However, it should be noted that although the study's results support the alternative hypothesis and show the effectiveness of the

Quranic Arabic Corpus in Nahwu learning, this study cannot conclude that this method is truly very effective. A note that the post-test score has yet to reach the ideal score indicates potential improvements that can be made. Overall, this research contributes to the Arabic language learning literature, especially in the context of Nahwu teaching. Applying the Quranic Arabic Corpus can be considered an innovation that opens opportunities for further development in teaching Arabic grammar with a more modern and effective approach.

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