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## CORRELATION BETWEEN INTERACTIVE MULTIMEDIA-BASED SUGGESTOPEDIA AND VOCABULARY MASTERY OF BEGINNER ARABIC LEARNERS

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### Abstract

This study aims to analyze the relationship between the application of the Suggestopedia method based on interactive multimedia and vocabulary mastery (mufradat) among beginner Arabic language learners. This research uses a quantitative, correlational design. The research population consists of 10th-grade students at MAN 3 Banyuwangi for the 2025/2026 academic year, with a sample of 40 respondents selected through a cluster sampling technique. The research data consists of quantitative data obtained from 40 respondents. The data source was a questionnaire that measured multimedia usage and Arabic vocabulary mastery. Data collection was conducted using a Likert-scale questionnaire that has undergone validity and reliability testing. Data analysis used the Spearman Rank test, which was chosen because it is suitable for analyzing ordinal data or data that does not meet parametric assumptions and does not require normality. The research results show a strong and significant positive correlation between the application of interactive multimedia-based Suggestopedia and students' vocabulary mastery ( $r = 0.791$ ;  $p < 0.05$ ). These findings indicate that optimizing the application of this method contributes to improved vocabulary mastery. This research provides theoretical contributions and practical implications for the development of technology-based Arabic language-learning strategies for beginners.

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### Keywords

Arabic Language; Suggestopedia Multimedia; Vocabulary Mastery.



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## INTRODUCTION

Arabic language learning at MAN 3 Banyuwangi is an important subject at the Madrasah Aliyah level, especially in the 10th grade, as a foundation for mastering Arabic language skills at the next level. The learning process encompasses four language skills, namely maharah al-istima' (listening), maharah al-kalam (speaking), maharah al-qira'ah (reading), and maharah al-kitabah (writing), with an emphasis on mastering vocabulary as a foundation for understanding texts and communicating in Arabic. In practice, the learning process is still dominated by conventional methods such as lectures, translation, and text reading exercises, resulting in low student participation and motivation on several occasions. Based on initial observation results and learning evaluation data, it is evident that the level of vocabulary mastery among 10th-grade students at MAN 3 Banyuwangi remains suboptimal. This is evident from the average student scores, which remain below the Minimum Completeness Criteria (KKM), as well as students' difficulties memorizing new vocabulary, understanding word meanings in the context of sentences, and using that vocabulary in language activities.

In response to the situation, the Arabic language teachers at MAN 3 Banyuwangi have made various efforts to improve students' vocabulary mastery, such as providing additional exercises, using learning media, and repeating vocabulary in every session. In addition, students are also encouraged to be more active in memorizing and using Arabic vocabulary in learning activities. However, these efforts have not yet shown optimal results in significantly improving students' vocabulary mastery. Therefore, there is a need for innovative teaching methods that are more effective and can create an enjoyable learning atmosphere. One of the methods considered promising is Suggestopedia, which emphasizes a relaxed learning atmosphere, the use of positive suggestions, and the use of learning media to help students understand and remember vocabulary more effectively.

Previous studies have shown that learning strategies play an important role in influencing vocabulary mastery (Kholiq & Fadli, 2022). Suggestopedia is a highly regarded method that emphasizes creating a comfortable, relaxed, and enjoyable learning environment (Susetya & Nafisa, 2024). This method is considered capable of increasing students' desire to learn and their engagement in the language learning process (Insaniyah dkk., 2023). Conversely, the literature review indicates that the use of interactive media in learning activities can enhance the appeal of learning, clarify the delivery of material, and improve understanding and vocabulary mastery

(AlShaikh dkk., 2024).

The suggestopedia method creates a relaxed, enjoyable atmosphere with music, positive suggestions, and creative activities, reducing learning anxiety and improving vocabulary retention. Interactive multimedia (interactive PowerPoint, Android comics, etc.) provides engaging visual and audio stimuli, making it easier to associate words, contexts, and meaningful repetitions. If these two approaches are combined, the more intense the application of interactive multimedia-based suggestopedia, generally, the higher the vocabulary mastery scores achieved by beginner students. (Safitri & Ammar, 2023)

The uniqueness of this research lies in the systematic, empirical study of the relationship between the application of the Suggestopedia method using interactive multimedia and the vocabulary mastery level of beginner Arabic students, particularly among 10th-grade students at MAN 3 Banyuwangi. Unlike previous studies that generally examined Suggestopedia or learning media separately (Akbar dkk., 2024). This research integrates both approaches within a single, unified learning framework. Besides emphasizing the principles of relaxation and positive suggestion as the main characteristics of Suggestopedia, this study also utilizes visual and audio-based interactive media to enhance the appeal and effectiveness of vocabulary learning. Thus, this research provides a new perspective on innovative Arabic language learning strategies that are adaptable to developments in educational technology and relevant to the needs of modern learners (Mardiyah & Sofa, 2025). This study aims to analyze the relationship between the application of the Suggestopedia method based on interactive multimedia and vocabulary mastery (mufradat) among beginner Arabic language learners.

## **METHOD**

This research uses a quantitative correlational design (Pratama dkk., 2023). The research focuses on evaluating the relationship between two variables: the application of the interactive multimedia-based suggestopedia method (variable x) and the level of vocabulary mastery among beginner Arabic language learners (variable y). This method was chosen because it can objectively and systematically measure the relationship between variables and provide a clear picture of the extent to which the teaching method's application influences vocabulary mastery. Vocabulary is a fundamental component of mastering language skills, including listening, speaking, reading, and writing. However, in practice, students' mastery of vocabulary still shows less-than-optimal results

due to the use of less innovative methods and limited use of interactive learning media. The integration of the Suggestopedia method with interactive multimedia is seen as a strategic alternative for creating a conducive, enjoyable, and effective learning environment.

This research was conducted at Madrasah Aliyah Negeri (MAN) 3 Banyuwangi, located in Banyuwangi Regency, East Java Province, Indonesia. The research location was purposively selected based on the relevance of the Arabic-language learning context at the madrasah to the research objectives. The research was conducted in the 2025/2026 academic year, involving students as research subjects in accordance with the researcher's criteria.

The study's population comprises all 400 10th-grade students enrolled at MAN 3 Banyuwangi for the 2025–2026 school year. Several classes designated as groups using the multimedia interactive suggestopedia approach were randomly picked as samples using the cluster sampling method (Fadhillah dkk., 2024). From that population, 40 students were selected as a sample. The criteria for selecting this sample were based on their active participation in learning and their willingness to take the vocabulary mastery level assessment, which provided students with the opportunity to evaluate various aspects of learning, including their level of interest, interaction, and ease of understanding the material.

Researcher used the interactive multimedia-based Suggestopedia method to get information on how it works in the learning process (Ali dkk., 2024). The questionnaire contains multiple statements concerning the utilization of the approach. A questionnaire on comprehending and using Arabic vocabulary was also used to assess how well the respondents knew their vocabulary. The assessment was also performed using a 4-point Likert scale. The research commenced with the identification of qualified schools and classes.

The analysis phase is conducted after all data has been obtained to determine the strength of the relationship between the two main variables. Spearman's Rank correlation analysis is used because it can evaluate the relationship between variables that do not follow a normal distribution. The analysis will produce a correlation coefficient that reflects both the direction and the strength of the relationship between the application of the multimedia-based Suggestopedia method and students' vocabulary mastery levels. Several methodological considerations justify the use of nonparametric tests: the data did not fully meet the interval-scale assumptions required for parametric tests, as they were collected via questionnaires using an ordinal Likert scale. The Pearson Product-Moment correlation analysis was deemed unsuitable because the Shapiro–Wilk normality

test indicated that the data were not normally distributed (Ventura-León dkk., 2023).

Based on theoretical studies and previous research on the application of the Suggestopedia method in language learning, the hypothesis of this research is formulated as follows:

$H_0$  (Null Hypothesis): There is no positive and significant relationship between the application of the Suggestopedia method based on interactive multimedia and the level of vocabulary (mufradat) mastery among beginner Arabic language learners.  $H_1$  (Alternative Hypothesis): There is a positive and significant relationship between the application of the Suggestopedia method based on interactive multimedia and the level of vocabulary (mufradat) mastery among beginner Arabic language learners. The hypothesis implies that the more optimal the application of the Suggestopedia method supported by the use of interactive multimedia in the learning process, the higher the vocabulary mastery level of beginner Arabic language learners (Putra dkk., 2025). Conversely, the application of a less optimal learning method can result in a lower vocabulary mastery level among students (Muhamad, 2021).

## FINDINGS AND DISCUSSION

### Findings

The purpose of this study is to determine whether there is a relationship between the vocabulary mastery level of students new to Arabic and the Suggestopedia method, an interactive, multimedia-based approach. Spearman's rank correlation technique was used to analyze data from 40 respondents.

### Validity Test

A validity test was conducted to determine how well the statements in the research instrument can accurately measure the intended variables (Lea dkk., 2022). Because the data in this study are ordinal (Likert scale) and the normality test indicated nonnormality, the Spearman Rank correlation test (Spearman's Rho) was used. States that the level of relationship between two ordinal variables can be determined using Spearman's Rank correlation test (Ramadhani dkk., 2024).

**Table 1.** Validity Test Results

Statement	r=Hitung	r=Tabel	P (Sig.)	Description
P1	0,853	0,312	0,000	Valid
P2	0,802	0,312	0,000	Valid
P3	0,809	0,312	0,000	Valid
P4	0,690	0,312	0,000	Valid
P5	0,656	0,312	0,000	Valid

P6	0,742	0,312	0,000	Valid
P7	0,758	0,312	0,000	Valid
P8	0,716	0,312	0,000	Valid
P9	0,714	0,312	0,000	Valid
P10	0,799	0,312	0,000	Valid
P11	0,756	0,312	0,000	Valid
P12	0,705	0,312	0,000	Valid
P13	0,684	0,312	0,000	Valid
P14	0,666	0,312	0,000	Valid
P15	0,710	0,312	0,000	Valid
P16	0,554	0,312	0,000	Valid
P17	0,563	0,312	0,000	Valid
P18	0,642	0,312	0,000	Valid
P19	0,672	0,312	0,000	Valid
P20	0,608	0,312	0,000	Valid

Based on the validity test results, all statement items (P1–P20) have r-count values greater than the r-table value (0.312). The highest r-count value is found in item P1 at 0.853, while the lowest r-count value is found in item P16 at 0.554. This indicates that all items of the instrument are declared valid, because an instrument is considered valid if the r-count value is greater than the r-table value (Sugiyono, 2019). Details of the instrument validity test results are presented in Table 1.

The calculation results show that the total calculated r value (0.312) is greater than the table r value, and the total significance value (Sig.) is  $0.000 < 0.05$ . This shows that all statements (P1–P20) are valid. This means the research instrument is suitable for data collection in the next stage because each item shows a strong, significant correlation with the total score, thereby consistently measuring the research variable's construct.

### **Reliability Test**

Reliability testing is conducted to determine how consistently an instrument measures research variables. An instrument is said to be reliable when its repeated measurements consistently show relatively the same results; in other words, reliability indicates the extent to which a measuring tool can provide stable and consistent results. According to (Amalia & Arthur, 2023). An instrument is considered reliable if its Cronbach's alpha value is greater than 0.70. Therefore, the Cronbach's alpha coefficient is used in this study.

**Table 2.** Reliability Test Results

Number of statements	Cronbach's alpha	Condition	Description
20	0,947	0,7	Reliabel

Based on the reliability test using Cronbach's Alpha, a value of 0.947 was obtained for the 20 statements. Nilainya lebih besar dari kriteria reliabilitas minimum sebesar 0,7, sehingga dapat disimpulkan bahwa instrumen penelitian memiliki tingkat reliabilitas yang sangat tinggi. Dengan demikian, instrumen tersebut dapat digunakan secara konsisten untuk mengukur variabel-variabel penelitian. Los resultados completos de la prueba de fiabilidad del instrumento se presentan en la Tabla 2.

The foregoing reliability test computations show that the research tool has an extremely high degree of dependability. The minimum requirement of 0.70 is well below Cronbach's Alpha of 0.947. The research variables, which are the use of the multimedia-interactive Suggestopedia method and the degree of vocabulary mastery among beginning Arabic language learners, are thus reliably measured by the twenty statements in the research instrument, all of which exhibit strong internal consistency. As a result, the tool is deemed appropriate for gathering data for additional research.

### Normality Test

Normality tests are conducted to determine whether the distribution of the research data is normal. The purpose of this test is to determine the type of statistical analysis to be used: parametric or non-parametric (Isnaini dkk., 2025). Normality tests in this study were performed using the Kolmogorov-Smirnov and Shapiro-Wilk tests. The SPSS program was also used. In the normality test, according to Ghazali (2018), the decision-making principle is as follows: a significance value (Sig.) greater than 0.05 indicates that the data has a normal distribution; conversely, a significance value (Sig.) less than 0.05 indicates that the data does not have a normal distribution

**Table 3.** Test of Normality

	Kolmogrov-smirnov			Shapiro-wilk		
	statstic	df	Sig.	statistic	df	sig
Suggestopedia	.217	40	.000	.894	40	.001
Mastery of Mufradat	.228	40	.000	.894	40	.001

According to the results of the Kolmogorov-Smirnov and Shapiro-Wilk tests, the variable Interactive Multimedia-Based Suggestopedia has p-values of 0.000 (K-S) and 0.001 (S-W), respectively, both < 0.05. The variable Vocabulary Mastery also has significance values of 0.000 (K-

S) and 0.001 (S-W), both < 0.05. Thus, it can be concluded that neither of the research variables has a normal distribution. Because of this, the statistical analysis used in this study is nonparametric, namely the Spearman Rank correlation test (Spearman's Rho). The purpose of this statistical analysis is to determine the relationship between the application of the Suggestopedia method based on interactive multimedia and the level of vocabulary mastery among beginner Arabic language (Faouri dkk., 2025).

**Spearman's Rank Correlation Test**

The Spearman correlation test, also referred to as Spearman’s rho, is a non-parametric statistical technique used to assess the strength and direction of the relationship between two variables based on their ranked data (Roflin & Riana, 2022). This method is applied when the data analyzed are ordinal in nature or do not satisfy the assumption of a normal distribution (Foldnes & Grønneberg, 2022).

**Table 4.** Test of Correlation

			<b>Suggestopedic method</b>	<b>Mastery of vocabulary</b>
<b>Spearman’s rho</b>	<b>Metode suggestopedia</b>	Correlation coefficient	1.000	.791
		Sig.(2-tailed)	.	.000
		N	40	40
	<b>Penguasaan Mufradat</b>	Correlation coefficient	.791	1.000
		Sig.(2-tailed)	.000	.
		N	40	40

According to the Spearman’s rho correlation test results table shown in the figure, the correlation coefficient between the application of the Suggestopedia method and vocabulary mastery is 0.791, with a significance value of Sig. (2-tailed) = 0.000, and the number of respondents (N) is 40. A significance value less than 0.05 indicates that the relationship between the two variables is statistically significant. However, a correlation coefficient of 0.791 indicates a strong, positive relationship, meaning that the more students use Suggestopedia, the more proficient they become in vocabulary use (Sudirman, 2023). This relationship is significant at the 0.01 confidence level, as indicated by the double asterisks (\*\*) on the correlation coefficient. Therefore, the findings of this study indicate a strong, significant positive correlation between using the Suggestopedia method and vocabulary mastery among students new to Arabic.

## Discussion

Based on the data analysis, this study indicates a strong and significant relationship between the application of the interactive multimedia-based Suggestopedia method and the level of vocabulary mastery among beginner Arabic language students. The results of instrument testing and statistical analysis are discussed in this discussion. The results of the Spearman Rank correlation test support this finding: a correlation coefficient of 0.791 and a p-value of 0.000 ( $p < 0.05$ ) indicate a strong positive relationship. These results indicate that the interactive multimedia-based Suggestopedia method is becoming increasingly effective and that beginner learners are becoming more proficient in vocabulary.

Before correlation analysis was performed, the research instrument had been subjected to validity and reliability assessments. The validity test findings indicated that all statement items exhibited calculated  $r$  values exceeding the table  $r$  value, with significance at the 0.05 level. This shows that the tool can accurately measure the research variables. Also, a Cronbach's Alpha of 0.947 indicates that the instrument is quite reliable, providing consistent and trustworthy measurement results. So, the data used in the correlation study are based on a strong, reliable measurement.

The normality test shows that the data for both variables are not regularly distributed. So, the Spearman Rank correlation test is a good choice for a non-parametric analytic method because it fits the data well (Gogo & Musonda, 2022). Choosing the right analytic method makes the research conclusions about the links between the variables researched more reliable. The strong positive relationship between the application of the interactive multimedia-based Suggestopedia method and vocabulary mastery can be explained by the method's characteristics. This method emphasizes creating a relaxed, comfortable, and stress-free learning environment, which can enhance learners' mental readiness to receive foreign language material (Hajmalek & Sabouri, 2025). Interactive multimedia, such as audio, visuals, and animations, provides multisensory stimulation that helps learners understand, retain, and use vocabulary more effectively (Ghofur & Riski, 2024).

For beginner Arabic learners, mastering vocabulary is the main foundation for developing other language skills (Alamer dkk., 2025; Jamroh & Nisa, 2021). Therefore, teaching methods that can increase learners' motivation, attention, and active engagement are very influential on the success of vocabulary learning (Khusniya, 2024). The findings of this study indicate that interactive multimedia-based Suggestopedia can meet these needs, thereby contributing to improved vocabulary mastery.

Thus, the results of this study confirm that the interactive multimedia-based Suggestopedia method shows a significant and meaningful correlation with vocabulary mastery among beginner Arabic language learners. This finding can serve as a reference for educators and practitioners of Arabic language education in selecting and developing effective learning strategies, particularly in the early stages of language learning.

## CONCLUSION

This study shows a strong and statistically significant positive correlation between the application of the Suggestopedia method based on interactive multimedia and vocabulary mastery among beginner Arabic language learners in class X at MAN 3 Banyuwangi. The findings contribute to the field of Arabic language education by providing empirical evidence that combining Suggestopedia principles, such as relaxation and positive suggestion, with interactive multimedia can enhance vocabulary acquisition. This integrated approach responds to the learning needs of beginner learners by enhancing motivation, attention, and engagement in the learning process. In practice, the results may serve as a reference for Arabic language teachers and curriculum developers in designing innovative, student-centered vocabulary instruction. Future research is recommended to examine the causal effects of this method through experimental designs, involve larger and more diverse samples, and explore its impact on other Arabic language skills, such as speaking and listening.

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