The Effect of Mnemonic Method with a Deductive Approach in Shorof Learning on Students Learning Outcomes

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Abstract

The aim of this research is to see how using a mnemonic method with a deductive approach affects in shorof learning outcomes of Interdisciplinary Islamic Studies students at Nahdhatul Ulama University Yogyakarta. Success in learning can be influenced by the selection of appropriate methods by the teacher during learning. One of the methods that can be used is the mnemonic method. This quantitative research used an experimental technique, a quasi-one-group pretest-posttest design. The acquired data were evaluated using descriptive statistical tests, a normality test with Kolmogorov-Smirnov, and a paired sample t-test. The findings of this research demonstrated that using the rhyme mnemonic method with a deductive approach to the subject of isim jamid in shorof learning, paired with the rhyme of sholawat badar, had an effect on students’ learning outcomes. This was shown by an increase in the average students’ pretest score from 61.50 to the average students’ posttest score of 81.67. The results of the significant value of the paired sample t-test being 0.000 also reinforced this effect. These significant findings revealed that Sig 0.000 < 0.05, indicating a substantial difference in students’ learning outcomes before and after using the mnemonic method with a deductive approach in shorof learning. Suggestions for further research are to vary learning
methods and approaches, considering that this way can affect the level of students’ understanding of the materials taught.

**Keywords:** Mnemonic method; deductive approach; *shorof* learning

**Introduction**

In Indonesia’s educational system, which includes both public and private institutions as well as elementary schools, Arabic has been known and utilized for a long time. In learning Arabic, learners will be faced with two basic sciences that are important to learn, namely nahwu and shorof. Because of its importance in the process of learning Arabic, the phrase “الصرف أم العلوم وال نحو أبوها” becomes the buzz words which mean that nahwu is the father of all sciences and that shorof is their mother.

The science of shorof is called the mother of all sciences because the science of shorof gives birth to the form of every sentence. In contrast, the sentence shows the various sciences. If Arabic learners do not understand shorof, they will find it difficult to determine the meaning and change of a word, because shorof studies the form of each word. Based on the foregoing, it can be concluded that the science of shorof is the change of word form from one word to another to find the desired meaning of a word.

In reality, shorof learning in tertiary institutions, especially in the Interdisciplinary Islamic Studies department at Nahdhatul Ulama University Yogyakarta, still has some obstacles. One of these obstacles is that the background in the Interdisciplinary Islamic Studies department demonstrates that not all students come from Islamic boarding schools or Islamic schools. Some are even from public schools. Therefore, those who graduate from public schools do not understand the science of shorof. This problem is a challenge for lecturers in guiding their students to the success of learning shorof in class.

The teacher’s choice of appropriate methods for teaching science can impact students’ success. Teachers, in this case lecturers, are required to be creative and innovate by applying methods that are tailored to changes in students’ attitudes and interests in the materials presented during learning. This

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is based on the methods used in learning to make it easier for students to obtain linguistic information. In reality, sometimes students find it difficult if the learning is not in accordance with their characteristics or is not directly on target.5

One of the ways used by teachers to convey learning well to students is through a teaching method.6 The use of a teaching method in learning Arabic is very influential in withdrawing students’ learning interest. The teacher must be knowledgeable about and adept at this type of teaching in order to make learning more interesting and varied for students’ benefit.7 This viewpoint is consistent with that of Fazuhra and Samin, who stated that various methods of learning are anticipated to increase students’ enthusiasm for Arabic learning. One method to promote interest in the learning process is through methods tailored to students’ needs.8 Every learning method has the same goal, which is to make the lesson clear and interesting for the students.9

The main mechanism for learning is a teacher who is meaningful and powerful presence in the classroom. A teacher is also important for education quality, since the quality of learning depends on the teacher quality.10 One learning method that might be employed while learning is mnemonic method. The term "mnemonic" originates from the title of an ancient divinity known as “Mnemosyne”11, who was associated with memory. This deity’s name is connected to memory,12 and the mnemonic method capitalizes on processes like encoding,
reinforcement, and retrieval in both immediate and enduring memory. This method can effectively assist students in retaining knowledge.  

The mnemonic method is a method for maximizing human memory ability to help a person recall and retain information in long-term memory. According to Baharun, teachers might utilize this mnemonic method to boost students’ memory by linking ideas to absorb materials so that they are more easily saved in long-term memory. 

Students will be guided to engage the right brain function when learning using the mnemonic method because they will be taught to invent stories, arrange tones or rhythms, and generate drawings so that the content being learned becomes distinctive, engaging, and exciting. According to some of these perspectives, this mnemonic method will help students recall information or content more easily and quickly.

A method embodies a more concrete and practical application of the theoretical principles found in the chosen approach. The mnemonic method used in this research will combine with a deductive approach to the shorof science learning process. The deductive approach is a shor of learning approach that presents the rules first and then gives examples. In the lesson, the rules will be explained first, after which it will continue by giving various examples relevant to the explanation of the previous rules.

The success of learning using the mnemonic method with a deductive approach in this study is seen in students’ learning outcomes. Learning outcomes are generally subject-specific and refer to those outcomes that initially articulate what students should know, be able to do, or value as a result of taking a course. The emphasis on a pedagogical purpose in learning outcomes

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is based on the anticipated results of a program or course in terms of knowledge, skills, abilities, and attitudes.¹⁹

Many studies have been conducted on the use of methods in shorof learning, including one by Muhajirunnajah on the use of language acquisition methods in shorof learning for beginner-level learners.²⁰ Mukroji did similar research, discussing the utilization of the tamyiz method for creativity and breakthroughs in quantum nahwu and shorof learning.²¹ In addition to this research, there is also research conducted by Siti Durotun Naseha and Muassomah regarding the use of inquiry methods and snowball tashrif methods in shorof learning.²²

Similarly, research on the utilization of mnemonic method in Arabic learning has been carried out multiple times. Parima Fasih, Siros Izadpanah, and Ali Shahnazaz’s research investigated the effects of mnemonic vocabulary teaching to improve content vocabulary learning in EFL classrooms.²³ Ilham Ferdinand and Fajar Alpy Yasri did similar studies to increase the vocabulary of Arabic employing the keyword type mnemonic method.²⁴

In addition to these studies, there is also research that uses mnemonic method such as acronyms, songs, acrostics, and rhymes in the development of supporting books for students to learn Arabic grammar.²⁵ The research undertaken differs from earlier studies in that it is quantitative research with a deductive approach that will concentrate on the effects of applying the rhyme-type mnemonic method on students’ learning outcomes in shorof learning.

This research employed a quantitative method, a quasi-experimental procedure, and a pretest-posttest design with one group. The quasi-experiment

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²² Naseha dan Muassomah, “Model Pembelajaran Ilmu Sharaf dengan Menggunakan Metode Inquiry dan Metode Snowball Tashrif.”


one-group pretest-posttest design is a one-group design with pre-treatment and post-treatment. The research employed only one group, with no comparison group. The strategy employed was to administer a pretest and a posttest to students in shorof learning on the topic of isim jamid before and after utilizing the mnemonic method with a deductive approach. The acquired data were evaluated using descriptive statistical tests, a normality test using Kolmogorov-Smirnov, and a paired sample t-test.

This research was conducted at Nahdhatul Ulama University Yogyakarta. This research population was all students majoring in Interdisciplinary Islamic Studies at Nahdhatul Ulama University Yogyakarta. Following that, the researchers used saturation sampling. Saturated sampling is a sampling strategy that draws samples from the entire population. As a result, the sample for this research consisted of 24 students studying Interdisciplinary Islamic Studies at Nahdhatul Ulama University in Yogyakarta. This research’s test instrument was an objective multiple-choice test with 15 questions relating to the material isim jamid.

**Findings and Discussion**

The mnemonic method used in this research is the rhyme technique. A rhyme is one that is made in such a way that it consists of rhythm, melody, and repetition. Usually, by playing the rhyme, an image will be created in the audio memory of someone who has listened by recalling the words that have been stored, which is also very useful for long-term memory. The rhyme-type mnemonic method establishes a connection between the subject matter or information being presented and familiar sounds or melodies. An illustrative instance of this learning approach involves forming memorable vocabulary associations by relating them to musical instruments.

Various sorts of songs may be used as examples of how rhyme types can be applied in this mnemonic method. Students can be more excited about studying shorof while using this rhyming mnemonic method since an engaging method must be prepared. It helps pupils retain the content or guidelines taught by the teacher during learning shorof. In the learning process, this mnemonic method applies through the rhyme of sholawat, whose lyrics replace with isim jamid material.

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The researchers developed shorof learning in the isim jamid content by linking the material or knowledge provided with notes or melodies that were frequently listened to. In shorof learning with this isim jamid material, the researchers linked the material with sholawat instruments that were suitable for remembering. The sholawat used in this rhyme mnemonic method was the rhyme of sholawat badar. A deductive approach accompanied the application of this rhyme mnemonic method.

The deductive approach is a thought process to conclude specific things based on general things previously established true things. The deductive approach in shorof learning began with presenting material or rules that were general to specific ones related to isim jamid. This was followed by giving examples related to the shorof rules explained, and students were given exercises to determine the extent of their understanding of what had been explained about the rules. Before students were given exercises related to the material explained, they were first given a rhyming mnemonic method that had been prepared to facilitate students' memory of the material that had been explained.

The impact of employing the mnemonic method with a deductive approach was examined using descriptive statistical tests, normality testing with Kolmogorov-Smirnov, and paired sample t-test tests utilizing SPSS calculations. The findings of each test connected to determining the effect of using the mnemonic method with a deductive approach to shorof learning are described below.

Before the research was conducted, the researchers first gave a pretest to the students involved in this research to find out the initial abilities possessed by students related to shorof learning related to the theme of isim jamid. The results of the pretest owned by students related to shorof learning related to the theme of isim jamid are in the following table.

Table 1. Descriptive Statistics Pretest Mnemonic Method

<table>
<thead>
<tr>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Sum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Results</td>
<td>24</td>
<td>40</td>
<td>87</td>
<td>1476</td>
<td>61.50</td>
</tr>
</tbody>
</table>

According to this data, a total of 24 students took the exam. The pretest had a minimum of 40 points and a maximum of 87 points, amounting to a total score of 1476. The average pretest score was 61.50, with a standard deviation of 11.474 based on the outcomes of the pretest scores.

After applying the mnemonic method with a deductive approach in shorof learning, students were given an exercise to evaluate the mnemonic method with a deductive approach related to isim jamid material. This was done so that the improvement of applying the mnemonic method with a deductive approach could be known. From the exercises given, the posttest results with a deductive approach can be found in the following table.

Table 2. Descriptive Statistics Posttest Mnemonic Method

<table>
<thead>
<tr>
<th>Posttest Results</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Sum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
<td>73</td>
<td>100</td>
<td>1960</td>
<td>81.67</td>
<td>7.856</td>
</tr>
</tbody>
</table>

The table above shows that 24 students took the test. The posttest had a minimum score of 73 and a maximum score of 100. The total number of values on the posttest was 1960. From the results of the posttest scores, it could be observed that the average value on the posttest was 81.67, with a standard deviation of 7.856.

The normality test was the next step taken by researchers. It examined if the population data was normally distributed. This test was also necessary before conducting an analytical paired-sample t-test. The researchers employed the Kolmogorov-Smirnov approach in this research to evaluate the normality of data using SPSS. The following are the findings of the normality test that was performed.

Table 3. Normality Test Results One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>Unstandardized Residual</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Normal Parameters&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td>Mean,000000</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation,51422913</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute,113</td>
</tr>
<tr>
<td></td>
<td>Positive,095</td>
</tr>
<tr>
<td></td>
<td>Negative,-113</td>
</tr>
<tr>
<td>Test Statistic</td>
<td>,113</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>,200&lt;sup&gt;c,d&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

The following provisions are the decision-making criteria for this research's normalcy test findings:

1. If the statistically significant value is ≥ 0,05, the data used comes from a normally distributed population.
2. If the statistically significant value is < 0,05, the data used does not come from a normally distributed population.
The normality test findings were 0.200 ≥ 0.05, based on the results of the data table above and the conditions of the applicable normality test decision-making criteria. Because the significance value was greater than 0.05, the data from the normality test was from a regularly distributed population.

The next stage was hypothesis testing if the data was deemed to be from a regularly distributed population. This research's hypotheses are as follows:

- $H_0$: there is no significant change between students’ learning outcomes before and after applying the mnemonic method with a deductive approach in shorof learning.
- $H_a$: there is a significant change between students’ learning outcomes before and after applying the mnemonic method with a deductive approach in shorof learning.

A paired-sample t-test was used to assess the research hypothesis. The results of the paired sample test (sig-2tailed), paired sample correlation, and paired sample statistic are shown in the table below:

<table>
<thead>
<tr>
<th>Table 4. Paired Samples Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>__________</td>
</tr>
<tr>
<td>Pair 1</td>
</tr>
<tr>
<td>Posttest</td>
</tr>
</tbody>
</table>

The table above shows that the average pretest score was 61.50, and the average posttest score was 81.67. Considering these findings, the average value after applying the mnemonic method with a deductive approach in shorof learning was more significant than before the application of the method in learning. This indicated an increase in student learning outcomes after the application of the mnemonic method with a deductive approach in shorof learning.

Table 5. Paired Samples Correlations

<table>
<thead>
<tr>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest and Posttest</td>
<td>24</td>
<td>0.877</td>
</tr>
</tbody>
</table>

The correlation test findings, or the association between the two data points, or the link between the pretest and the posttest variable, are shown in the table above. According to this table, the correlation coefficient value was 0.877, with a significance value (Sig.) of 0.000. Because the value of Sig. 0.000 was < 0.05, it showed that there was a connection between various variables on the pretest and posttest.
Table 6. Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>95% Confidence</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
</tr>
<tr>
<td>Paired Differences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>n</td>
<td>Mean</td>
</tr>
<tr>
<td>Pai r 1 Pretest</td>
<td>-20,167</td>
<td>5,939</td>
</tr>
</tbody>
</table>

The following provisions are used to make decisions based on the findings of the paired sample t-test in this research:

1. If the statistically significant value $> 0.05$, then $H_0$ is accepted and considered true.
2. If the statistically significant value $< 0.05$, then $H_a$ is accepted and considered true.

The paired sample t-test had a significant value of 0.000. According to the research findings and discussion, it was possible to infer that there was a significant variation in student learning outcomes before and after using the mnemonic method with a deductive approach to shorof learning. The findings of the data table above and the specifications of the relevant paired sample t-test decision-making criteria indicated these substantial results, where Sig 0.000 $< 0.05$, signifying the recognition and accuracy of $H_a$. Consequently, there was a substantial difference in student learning outcomes between before and after using the mnemonic method with a deductive approach in shorof learning.

Based on the statistical tests that have been carried out above, we can find that the application of the mnemonic method with a deductive approach to learning can provide significant changes between student learning outcomes before and after applying the method to their learning. This is evidenced by the difference in the average pretest value, which is 61.50, and the average posttest value, which is 81.67, which shows the average value after the application of the mnemonic method with a deductive approach in shorof learning is greater than before the application of the method in learning.

Another thing that proves the effectiveness of the mnemonic method with a deductive approach in learning shorof is the paired sample t-test, for which it is known that the significance value of the paired sample t-test is 0.000. With these significance results, it shows that Sig 0.000 $< 0.05$, which means that $H_a$ is accepted or considered true and $H_0$ is rejected or considered false. This shows that there is a significant difference between student learning outcomes
before and after applying the mnemonic method with a deductive approach in shorof learning.

The use of the mnemonic method with a deductive approach in shorof learning is intended to improve students' memory in learning shorof rules on isim jamid material. Students' memory here is measured by conducting a learning outcome test using an objective test type. The mnemonic method with this type of rhyme is said to be effective because students can more easily remember the shorof rules regarding isim jamid material that has been taught by the lecturer through the achievement of the number of test scores given. Through the statistical tests that have been carried out in this research based on the results of student learning outcomes tests, it can be concluded that the rhyming mnemonic method can improve their memory of the material they learn, namely isim jamid.

The positive evidence of the use of the rhyming mnemonic method is in line with the opinion of Nurhapsari Pradya Paramitha, who states that the use of rhymes in Arabic language learning can improve one's memory and understanding more effectively. A research done by Asep Adi Ismanto, who employed the mnemonic method to increase students productive Arabic abilities, also lends credence to this research. According to his findings, there is a significant improvement in students’ Arabic fluency after using the mnemonic method; hence, this type of method is said to be successful in increasing pupils productive Arabic abilities.

According to this research's findings, experts believe that educators should employ methods of learning that might pique students’ interest in Arabic learning. Learning approaches, in addition to promoting students’ interest in learning, have an impact on attaining learning objectives. Using suitable methods of learning that adapt to the qualities of students helps maximize the development of their potential and talents, leading to good attitudes and actions.

In fact, methods are very important in the creation of an ideal education. With these methods, an educator will be able to convey his knowledge to students. Effective teaching is highly dependent on the selection of methods and their implementation. Using the mnemonic method with a deductive

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approach is a good choice for learning shorof, significantly improving students’ learning outcomes. In addition to improving students’ learning outcomes, the researchers also see that in classroom learning, this mnemonic method with a deductive approach can foster students’ interest in learning shorof so that students can take part in learning happily.

This opinion is related to the views of Ahmad Zainudin and Khozainul Asror who conducted research on the use of mnemonic method to improve students’ understanding of nahwu learning based on the problematic use of learning methods that are less diverse and the frequent use of lecture methods and grammatical tarjamah, which caused students to be bored and lazy to take part in learning.35

The deductive approach is also very relevant to be applied in learning, especially in shorof learning for college students. This is consistent with the opinion of Adi Supardi, Agung Gumilar, and Rizki Abdurohman, who in their research said that by implication, this deductive approach is considered appropriate if used by adult learners or those who are fluent in reading and speaking Arabic as a reinforcement of theory.36

**Conclusion**

According to the research findings and discussion, it is possible to infer that there is significant variation in students’ learning outcomes before and after using the mnemonic method with a deductive approach to shorof learning. According to the findings, the average pretest score is 61.50, while the average posttest score is 81.67. According to the statistics, the average value after employing mnemonic method with a deductive approach in shorof learning is greater than before using the method in shorof learning. This demonstrates an improvement in students’ learning outcomes following the employing of mnemonic method. This is supported by the paired sample t-test significant value, which is 0.000. The significant results reveal that Sig is 0.000 < 0.05, indicating that $H_a$ is accepted and considered correct. Suggestions for further research are to vary learning methods and approaches, considering that it can affect the level of students’ understanding of the materials being taught.

**References**

Albantani, Azkia Muharom. “Pembelajaran Bahasa Arab di Madrasah Ibtidaiyah:


Mukroji. “METODE TAMYIZ (Sebuah Formulasi Teori Nahwu Shorof


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