

THE EFFECT OF AL-QUR'AN MURATTAL AUDIO ON THE STUDENTS' MEMORY OF BIOLOGICAL LATIN NAMES IN HUMAN MOVEMENT SYSTEM MATERIALS IN GRADE XI IPA SMA IT WAHDAH ISLAMIYAH

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Abstract

This study aims to: (1) Describe the level of memory ability of biological Latin names of human motion system material in students who listened to murattal audio, (2) Determine the level of memory ability of biological Latin names of human motion system material of students who did not listen to murattal audio, (3). Analyze the influence of murattal audio on the memory of biological Latin names in the human motion system material. This research was quasi-experimental with a non-equivalent control group design. This study involved 58 of 70 students consisting of 29 students in a control class and 29 students in an experimental class. They were selected by the purposive sampling technique. The research instrument was a learning outcome test. The data were analyzed through descriptive statistical analysis and inferential analysis which were preceded by prerequisite tests and then carried out by an independent sample t-test. The results showed that the memory ability of biological Latin names in the experimental class is higher than in the control class. Furthermore, the experimental class is in the high category, while the control class is in the medium category. Thus, it proves that the murattal audio of Al-Qur'an can improve students' memory of biological Latin names. Research implications are also presented in this study.

Keywords: audio, media, Al-Qur'an murattal, memory

INTRODUCTION

The Everyone who studies usually faces problems, such as academic anxiety when facing exams and difficulty concentrating in learning, understanding, and remembering the material that has been taught. Memory is the human ability to process information and recall it when needed. Therefore, low memory will greatly affect the learning outcomes and achievement of students. Rusyan (2006) states that the memory system is very influential on the success or failure of a person in learning. There is no good memory or bad memory before determining a certain intelligence (Amstrong,

2004). Therefore, this memory problem is interesting to be researched.

Various studies have been carried out to address learning problems and appropriate learning models to improve student memory. It also includes research on the influence of classical music on memory. A study conducted by Yokahan et al. (2006) in their journal entitled *Efektivitas metode mneomonik ditinjau dari daya ingat dan hasil belajar matematika siswa SMK kelas X*, found that the Mnemonic method was effective for learning trigonometry in terms of memory. This indirectly proves that memory can then be maximized by maximizing the factors that influence it. Memory can be influenced by physiological, psychological, and pathological

factors such as age, type of food, exercise (physical exercise), repeated memory exercises, ability to concentrate, hormones, gender, genes, etc. In addition, factors that influence memory are the effects of serial position, expertise, special coding, emotions and effects, environment and physical, and mental conditions (Dahlan et al., 2010). Nasriyanti (2013) also found that classical Mozart music affected the ability to remember Latin names. This research proves that sound influences memory because sound influences humans both physically and psychologically.

Based on the explanation above, this study aims to determine the description of the memory ability of the biological Latin names of material for the human movement system in students who listened to murattal audio and students who did not listen to murattal audio. Furthermore, this study analyzed the influence of murattal audio on the memory of biological Latin names in human motion system material by comparing the control and experimental classes.

This objective leads to an argument that among the sounds' types that influence humans both physically and psychologically, listening to the murattal of Al-Qur'an has a better influence. Murattal is a sound or music that has a positive influence on the listener. Murattal is a sound recording of the Al-Qur'an recited and chanted by a reader of the Al-Qur'an (reciter). The recorded sound of the Al-Qur'an is like sound waves that have a certain beat and wave, entering and spreading into the human's body then producing vibrations that can affect the function of brain cells and make a balance in them. Murattal sound contains elements of the human voice which can provide health effects because it can reduce stress hormones, activate natural endorphine hormones, and increase relaxation. The Al-Qur'an also has a beneficial effect because it contains several aspects, including meditation, autosuggestion, and relaxation (Idham et al., 2017).

Al-Qur'an and Al-Qur'an Murattal **Definition of Al-Qur'an Murattal**

Siswantinah in Risnawati (2017) explains that the meaning of Al-Qur'an murattal is a voice recording of Al-Qur'an that is sung by a reciter (Al-Qur'an reader).

Widayarti in Risnawati (2017) asserts that the Al-Qur'an reading that is read murattally has a constant rhythm and no sudden change. Murattal tempo is between 60-70 / minute, also has a low tone so that it has a relaxing effect that can reduce stress and anxiety levels. Al-Murattal comes from the word *Ratlu Assyaghiri* (a plant that is well ripe and chapped). In terms, it is a quiet reading, which the letters come out of *makhroj* that should be accompanied by a reflection of the meaning. Thus, Al-Murattal is a form of guarding and preserving the Al-Qur'an by recording on the vocal cords by paying attention to the laws of reading, each letter, and *waqof* (places to stop reading). Based on this explanation, it can be concluded that the Al-Murattal or Al-Qur'an murattal is a sound recording of the Al-Qur'an that is read and chanted by a reciter with a calm reading, moderate tempo, and low tone and maintains recitation and has a positive effect on the physical and psychic (Risnawati, 2017).

Benefits of Al-Qur'an Murattal Therapy

Al-Qur'an is the holy book in Islam as a guide for its people. Al-Qur'an has several terms, one of them is *as-syifa*. The term *as-syifa* indicates the Al-Qur'an functions as a medicine for various diseases, both physical and non-physical ailments. There are matters related to medical science and medicine in the Al-Qur'an that can cure physical ailments from outside. Also, there is a way to cure non-physical diseases in the Al-Qur'an, including heart or soul disease, anxiety, and sadness (Risnawati, 2017). Al-Quran is a complete medicine for all types of diseases, heart disease and physical disease, both world disease and disease in the hereafter (Siswantinah, 2011).

Triana (2013) in her journal entitled *Pengaruh terapi murattal terhadap denyut nadi dan frekuensi pernapasan pada bayi prematur di RSUD Bnayumas*, explains that murattal has several benefits, including:

- a) Listening to the recitation of the Al-Qur'an verses with *tartil* recitation will bring peace to the soul;
- b) The chanting of the Al-Qur'an physically contains elements of the human voice which is an amazing healing instrument and very easy to reach. The human voice can lower natural endorphin hormones, relaxes and diverts feelings of anxiety,

fear, and tension, improves the body's system to slow down breathing and lower blood pressure, slow down the heart rate, pulse, and brain wave activity. This slower and deeper breathing rate is excellent for producing calm, emotional control, clearer thinking, and better metabolism.

- c) Through murattal therapy, the quality of one's awareness and knowledge of God will increase, whether the person listening to it understands Arabic or not. This increased awareness will make the totality of one's submission to Allah 'Azza Waa jalla. In these conditions, the brain is in alpha waves, which are brain waves at a frequency of 7-14 Hz. This is an optimal brain energy condition and can eliminate anxiety and stress (Triana, 2013).

Mechanism of Al-Qur'an Murattal Therapy

The mechanism of murattal therapy is when the stimulation generated by murattal forces the brain to produce a chemical called a neuropeptide substance. These chemicals will stick into the receptors and respond, namely a sense of comfort and pleasure. This physical stimulation is converted by potassium and sodium ions into an electric current that passes through the VIII nerve (vestibulocochlear) to the brain, specifically in the auditory area. After the change in action potential caused by the auditory nerve, the propagation of the action potential to the audiotorius cortex (which is responsible for analyzing complex sounds, short-term memory, pitch comparison, inhibiting unwanted motor responses, serious listening and so on) is accepted by the Temporal Lobe of the brain to provide sound. The thalamus, as an impulse transmitter, will continue to stimulate the amygdala (a storage place for emotional memory) which is an important part of the limbic system, a system that affects emotions and behavior (Risnawati, 2017).

A very large physiological change can be felt by a Muslim who listens to the recitation of the verses of the Al-Qur'an. Globally, they feel a decrease in sadness, depression, and mental stress (Siswantinah, 2011). The chanting of murattal sounds contains elements of the human voice which can have a health effect because it can reduce

stress hormones, activate natural endorphins, increase relaxation, shift focus from feelings of tension, anxiety and fear, and improve the body's chemical system to change the body's physiology, slow down heart rate, pulse, respiration and brain activity waves. This proves that the Al-Qur'an can be used as a complementary treatment method because it can increase feelings of relaxation (Risnawati, 2017). Adurrahman explained in Ulfa (2018) that the Al-Qur'an murattal stimulant can be used as a new alternative therapy, namely relaxation therapy which is even better than other available audio therapies. This happens because the stimulants generated by the Al-Qur'an can produce 63.11% delta waves. This therapy is also inexpensive and does not cause side effects. It produces a low sound intensity that is an intensity below 60 decibels so that it causes comfort and painlessness. Meanwhile, murattal is a sound with an intensity of 50 decibels that has a positive influence on the listener. Research conducted by Ashaheri, Jahdi & Hosseini, stated that the benefits are more effective with 15-25 minutes (Ulfa, 2018).

Memory

Definition of Memory

Memory is information retention (Santrok, 2004). According to Bruno in Shah, memory is a mental process that includes the coding process, the storage process, and the process of recalling information and knowledge in the brain. This is in line with Suryabrata that defines memory as the ability to receive and reproduce impressions (Suryabrata, 2010). Thus, memory is present knowledge about past experiences. Meanwhile, Winkle in Dahlan argues that memory is a cognitive activity, where humans realize that their knowledge comes from the past. Hence, the definition of students' memory is a brain function which consists of receiving, entering, storing, and releasing information obtained by students and memory itself can be defined as present knowledge about the past (Dahlan et al., without years). Based on some of the above definitions, it is concluded that memory is the process of entering information into the brain through several stages, namely coding, storing, and re-presenting information that has been stored.

Types of Memories

Memory is categorized into short-term memory and long-term memory (Atkistson et al., 2004). Short-term memory is a capacity memory system in which information is retained for about 30 seconds unless the information is repeated or further processed, in which case the retention life may be longer. This short-term memory is sometimes called working memory. Information that has just entered the brain is stored in a temporary storage area called sensory memory, a storage subsystem in the sensory nerves that receives information which is then processed to enter long-term memory. Long-term memory is a type of memory that stores a lot of information over a long period on a relatively permanent basis (Santrock, 2004). This is influenced by the deep impression that the memory captures with respect to that information or experience (Aunillah, 2004).

The process of transferring information from short-term memory to long-term memory is through the following methods: consolidation, metamory, and rehearsal. Consolidation, in this case, the item of knowledge that has just been studied or is being studied is integrated with the prior knowledge that the previous student had. Metamory, to increase the success of consolidation, a metamory strategy is needed. Metamory simply means above the prevalence of memory. Rehearsal (memorization), either overt (openly / loudly) or covertly (hidden / unheard), is a good way to retain information and knowledge in memory.

However, memorization will not last long if it is not accompanied by an adequate understanding of the memorized item of knowledge. Therefore, in rehearsal, it is necessary to understand the meaning, significance, and relevance of the memorized item with other items (Shah, 2013). One theory states that all memories are frozen patterns that wait for a resonant signal to wake it up (Jensen, 2008). New information will only be stored in short-term memory. In order to last a long time in memory (long-term memory), the information must be repeated. Apart from repetition, another alternative to make information that can last a long time is making the information unique or memorable.

Stages of Memory

Several stages in memory are encoding (the process of entering information or messages into memory), storage (the process of storing messages), and retrieval (the process of recalling) (Atkistson et al., 1983).

a. Message Entry Process (Encoding)

Encoding is the process of entering information into memory. The more organized the information presented, the easier it is for students to remember (Santrok, 2004)

b. Storage

After the process of encoding the information carried out by students, it is necessary to store or retain the information. The process of maintaining and storing formation involves three types of memory. Those are sensory memory which only lasts a few seconds, short-term memory that lasts for thirty seconds, and memory that persists in long-term memory that lasts up to a lifetime (Atkistson, 1983).

c. Recall (Retrieval)

Remembering is a memory task in which a person must recall information that has been learned (Santrok, 2004). Although recalling requires digging and searching for short-term memories, every item was tested one by one (Alkitson, 1983).

Factors Affecting Memory

Memory is influenced by physiological, psychological, and pathological factors, such as age, type of food, physical exercise, repetitive memory training, ability to concentrate, hormones, gender, genes, and others. Suharnan in Dahlan explains that several factors influence memory, including serial position, expertise, special coding, emotions, environmental effects, and physical and mental conditions (Dahlan et al., without year). Douglas in Khadija asserts that attention is an important process of the memory system. External strength, information, and willingness affect attention during the process of remembering (Syayidah, 2009).

RESEARCH METHOD

This experimental research was a quasi-experiment. It is one of the experimental research types that the researcher does not randomize in determining the subject of the

research group, but the results are quite meaningful both in internal and external validity (Darma, 2008). The design of this research was a non-equivalent control group. This research was located at SMA IT Wahdah Islamiyah with a total population of 70 students, the total of students in grade XI IPA. This research applied the purposive sampling technique. The research sample was determined according to the objectives or problems to be studied. In this study, the sample was determined based on the homogeneity of students' memory levels, namely Long-Term Memory (LTM). The samples used in this study were 58 students, with 29 students each for the control class and the experimental class.

The instruments used in this study were a test of learning outcomes and documentation. The test was one way to estimate a person's ability indirectly, through a person's response to a stimulus or question. The test could also be interpreted as some questions that must be responded to measure the level of a person's ability or certain aspects of the person being tested. The test taker's responses to several questions and statements describe abilities in certain fields (Widoyoko, 2014). This study used a multiple-choice question. Documentation, in this case, was any written source that was used as a tool to obtain information, which was usually an archive. This documentation could also be in the form of photographs taken at the research location as data that was used as a reference for observing field conditions. The data from the research results were then analyzed using statistical analysis tests that is the t-test Independent Test using the Statistical Product and Service Solution application (SPSS version 16).

Table 1
Frequency Distribution of Control Class

No.	Score	The Number of Students
1	87.1	6
2	80.4	11
3	73.7	4
4	67.0	3
5	60.3	4
6	46,9	1

The data in Table 1 is used as the basis for descriptive processing. From this table, the following analysis results are obtained:

Table 2: Descriptive Statistics of Control Class

Descriptive Statistics of Control Class	
The Number of Samples	29
Maximum Score	87.1
Minimum Score	46.9
Mean	74.4
Standard Deviation	10.1
Variance	103.7
Coefficient of variance	13.6

Based on Table 2, the maximum score of memory ability of students who did not hear murattal audio is 87.1, and the minimum score is 46.9. The mean obtained is 74.4, this score is the same as using SPSS. The standard deviation obtained is 10.1. Standard deviation is a measure that describes the level of spread of the mean value of the students' recall ability test results. In addition, there are also variances and coefficient of variances. The variance measures the diversity of the scores obtained on the student's recall ability test with a variance value of 103.7%. While the coefficient of variation shows the percentage of equalization of treatment given to the class. The smaller the coefficient of variation, the more equitable the treatment is given to an object with the acquisition of a coefficient of variation of 13.6%.

Based on the obtained data and the results of descriptive analysis, and referring to the guidelines of the Ministry of Education and Culture (Depdikbud), the students' memory abilities of grade XI SMA IT Wahdah Islamiyah in the control class or classes where the murattal audio of the Al-Qur'an was not listened to shown in Table 3. below:

Table 3
Categorization of Students' Memory Ability in Control Class

No.	Interval	Frequency	Percentage	Category
1	0-34	0	0 %	Very Low
2	35-54	1	3.44%	Low
3	55-64	4	13.79%	Medium
4	65-84	18	62.04%	High
5	85-100	6	23.07%	Very High
	Total	29	100%	

Based on Table 3, the results of the students' memory ability who did not listen to the Al-Qur'an murattal are categorized in several levels. In the very high category, there are 6 students with a percentage of 23.07%. In the high category, there are 18 students with a percentage of 62.04%, 4 students are in the medium category with a percentage of 13.79%, and 1 student is in the low category with a percentage of 3.44%. Based on the data above, most students' memory ability is in the high category, 18 students with a percentage of 62.04% with a value range of 67.0-80.4.

The frequency distribution of students' memory abilities in grade XI SMA IT Wahdah Islamiyah in the experiment class is:

Table 4. The Frequency Distribution of Experiment Class

No.	Score	The Number of Students
1	93.8	7
2	87.1	10
3	80.4	5
4	73.7	5
5	67.0	1
6	60.3	1

The data in table 4 is used as the basis for descriptive processing. From table 4, the following analysis results are obtained:

Table 5. Descriptive Statistics of Experiment Class

Descriptive Statistics of Experiment Class	
The Number of Samples	29
Maximum Score	93.8
Minimum Score	60.3
Mean	83.6
Standard Deviation	8.9
Variance	78.9
Coefficient of variance	10.6237

Based on Table 5, the maximum score of the student's memory ability test who listened to murattal audio is 93.8, and the minimum score is 60.3. The mean score obtained is 83.634, this score is the same as using SPSS. The standard deviation obtained is 8.8851. In addition, there are variances and coefficient of variation. Variance measures the diversity of values obtained on the students' memory ability test who listened to murattal

audio with a variance value of 78.944%. The acquisition coefficient of variation is 10.6237%.

Based on the data obtained from the descriptive analysis results, and referring to the guidelines of the Department of Education and Culture (Depdikbud), the memory abilities of grade XI SMA IT Wahda Islamiyah in the experimental class or classes that listened to murattal audio of the Al-Qur'an, are categorized shown in table 6.

Table 6
Categorization of Students' Memory Ability in Experiment Class

No.	Interval	Frequency	Percentage	Category
1	0-34	0	0	Very Low
2	35-54	0	0%	Low
3	55-64	1	3.44%	Medium
4	65-84	11	37,94%	High
5	85-100	17	58.62%	Very High
Total		29	100%	

Based on table 6, scores for the students' memory ability who listened to the Al-Qur'an are in several categories. In the very high category, there are 17 students with a percentage of 58.62%. In the high category, there are 11 students with a percentage of 37.94%, and 1 student is in the medium category with a percentage of 3.44%.

Based on the data above, the memory ability of most students is in the very high category, 17 students with a percentage of 58.62% and a value range of 87.1- 93.8.

After the prerequisite test is carried out, if the data distribution is normal and homogeneous, the analysis is continued with hypothesis testing. Hypothesis testing aims to prove the truth or answer the hypotheses presented in this study. The hypothesis test used in this study was the Independent sample T-2 test because the samples used were not interrelated. This means that the sample used in the control class was different from the experimental class. The results of hypothesis testing using SPSS show that the hypothesis in this study is accepted or proven.

The variable measured in this study was the memory ability of students, which was measured by a multiple-choice test based on the memory ability indicator in the C1 domain in grade XI SMA IT Wahdah Islamiyah. This memory ability test was carried out in the control class without listening to the murattal audio of the Al-Qur'an. From the results of this study, it can be seen that the categorization of students' memory abilities is divided into several categories: high, medium, and low.

The maximum memory score obtained in the control class, where the Al-Qur'an murattal audio was not listened to, is 87.3, and the minimum score obtained by students is 46.9. The mean score obtained by the whole students is 74.393. Thus, the memory ability of students who did not listen to Al-Qur'an murattal audio is in the high category seen from the highest frequency of students who are in the score range of $67.0 = X = 80.4$ with a percentage of 62.04%.

Based on the study results, the memory ability of students in the control class or class where the Al-Qur'an murattal audio was not listened to is in the high category because students of class XI SMA IT Wahdah Islamiyah basically have good memory skills. This is in accordance with the results of the memory test that the researcher has done before conducting the research, that students in control and experimental classes have a comparable level of memory, namely the Long-Term Memory (LTM). Therefore, the results in the experimental class, where the Al-Qur'an murattal audio was listened to, the categorization of students' memory abilities is divided into several categories: very high, high, and medium.

The highest score for the memory ability test obtained in the experimental class is 93.8, while the minimum score is 60.3. The mean score obtained by whole students is 83.6. The memory ability of students in the experimental class is included in the very high category seen from the highest frequency of the number of students in the score range $87.1 = X = 93.8$ with a percentage of 58.62%. The memory referred to in this study is based on Bloom's cognitive theory at the first level, namely knowledge of specific things.

According to Bloom, every knowledge is different. Remembering is a

psychological process and one part of a complex process. Retrieval (memory-recall) information about a specific matter departs from the main facts for each area of knowledge. Knowledge of this specific subject can provide many options for determining learning objectives. In line with Charles M. Reigeluth (1989) in Suyono, dividing the stages of cognitive learning into the memory stage (memorization), the understanding stage, and the application stage. At the memorization stage, learners do coding, give names or terms to facts or information by making associations between stimuli and responses (Kuswana, 2012).

The research results show a significant difference in memory ability between the class where the AL-Qur'an murattal audio was not listened to and the class where the AL-Qur'an murattal audio is listened to. This can be observed from the score difference in memory ability of students in the two classes, where the class that did not listen to murattal audio obtains a mean score of 74.34. The memory ability of these students is in the high category. Based on the highest frequency, 18 students are in the high category with a percentage of 62.04% in the range score of 80.4-87.1. In comparison, in the experimental class or class where murattal audio was listened to, the mean score is 83.6. The memory ability of students in that class is in the very high category. Based on the highest frequency, 17 students are in the very high category with a percentage of 58.62% in the range score 87.1-93.8.

Based on the data above, there is a difference in categorization in the control and experimental classes. The overall score of students' memory ability in the control class falls into 3 categories, which are high, medium, and low. Whereas in the experimental class, the overall score of students' memory abilities is in 3 categories, which are very high, high, and medium. In the control class, there are no students in the very high category. While in the experimental class, there are no students in the low category.

The significant difference between the two classes shows a difference between the class where the Al-Qur'an murattal audio was listened to and the class that did not listen to the Al-Qur'an murattal audio. To prove this, hypothesis testing was carried out using the

SPSS. The results show that the 2-tailed sig value is $0.001 < 0.05$. This means that there is a significant difference between the control class and the experimental class. It means that H1 is accepted and H0 is rejected. Therefore, it can be concluded that listening to the murattal audio of Al-Qur'an in students has an effect in improving the memory of biological Latin names on the material of human movement systems.

This is supported by research conducted by Idham and Ridho, with the title "Apakah dengan mendengarkan murattal Al-Qur'an dapat menurunkan kecemasan akademik pada Mahasiswa?". This study aims to test the effectiveness of listening to the murattal audio of the Al-Qur'an in reducing student anxiety. The research respondents used a random sampling technique by using the research design one group pre-test post-test. This study uses a scale of academic anxiety by Isthifa (2011). The results of his research show that listening to the Al-Qur'an murattal is effective in reducing academic anxiety in students (Idham, 2017).

Another research that supports this research was conducted by Julianto et al, with the title "pengaruh mendengarkan murattal Al-Qur'an terhadap peningkatan kemampuan konsentrasi". This study aims to see the effect of murattal audio on increasing concentration skills. The research subject was a student at the University of Islam Negeri Sunan Gunung Djati Bandung aged 18-20 years with a GPA above 3.00. Measurements using the Digit Span test. Data were analyzed by a statistical parametric T-test. The results of his research show that listening to the Al-Qur'an murattal has an effect on increasing concentration abilities (Julianto et al., 2014).

The difference in the ability to remember between the two classes was due to the given treatment. The control class did not listen to the Al-Qur'an murattal, while the experiment class listened to the Al-Qur'an murattal. Giving audio Al-Qur'an murattal increased the ability to remember students because the Al-Qur'an murattal audio directly affects students' physical and psychological condition. The mechanism of action of murattal therapy is when the stimulation generated by murattal forces the brain to produce a chemical called a neuropeptide

substance. These chemicals will attach to the receptors and provide a return response, namely a sense of comfort and pleasure. This physical stimulation is then converted by potassium and sodium ions into an electric current that passes through the VIII nerve (cochlear vestibule) to the brain, to be precise in the auditory area.

After the change in action potential caused by the auditory nerve, the propagation of the action potential to the auditory cortex (which is responsible for analyzing complex sounds, short-term memory, pitch comparison, inhibiting unwanted motor responses, serious listening and so on) is received by the lobe, temporal brain to perceive sound. The thalamus as an impulse transmitter will continue to stimulate the amygdala (a storage place for emotional memories) which is an important part of the limbic system, which is a system that affects emotions and behavior (Risnawati, 2017). Huge physiological changes can be felt by someone who hears the chanting of the verses of the Al-Qur'an. Globally they feel a decrease in sadness, depression, and mental stress. (Siswantinah, 2011). Similarly, the provision of murattal audio of the Al-Qur'an increases students' memory ability because the murattal audio of the Al-Qur'an directly affects the physical and psychological conditions of students so that it can affect students' memory abilities.

Dr. Al Qadhi in M. Quraisy shihab's book, with his long and serious research in the United States, namely at the Florida clinic, proves that they can feel significant psychological changes by listening to Al-Qur'an recitation, whether they can speak Arabic or not. The psychological changes in question, such as reducing sadness, anxiety, and depression, also bring about peace of mind. The general effect on the subject of research is that it can ward off various kinds of diseases. This research is then supported by various sophisticated equipment such as equipment for checking blood pressure, heart rate, muscle resistance, and skin resistance to electric current pressure. Based on his experiment results, he concluded that reciting the Al-Qur'an 97% can create peace of mind and treat illnesses (Shihab, 2014).

Not only doctors of Al Qadhi research this. Different doctors also carried out another

research supporting this research, then reported and delivered at a conference on Islamic medicine in North America in 1984. It was explained that the Al-Qur'an could bring peace of mind to 97% of those who listened to it. Then the conclusion of the trial results was reinforced by a study conducted by Muhammad Salim which was published in Boston. The study was conducted with 5 volunteers, 2 women, and 3 men. These five people really did not understand Arabic and did not know that what they were listening to was the Al-Qur'an. This research, which was conducted 210 times, was divided into two stages, namely reading the Al-Qur'an with tartil and reciting Arabic that is not from the Al-Qur'an. In conclusion, respondents get up to 65% calmness when listening to Al-Qur'an recitation, and only 35% get calm when listening to Arabic that is not from the Qur'an. Thus, decreasing anxiety and tension experienced by a person can increase concentration (Julianto et al., 2014).

Memory is closely related to concentration. Although many books explain the problem of memorization, most of them explain concentration which directly affects memorization. Seeing the phenomenon and the results of research on the Al-Qur'an today, the researcher is interested in conducting a study using the murattal audio of the Al-Qur'an and seeing its effect on the memory of biological Latin names on the material of human motion systems.

CLOSING

The conclusion obtained from this study is the ability to remember the biological Latin names on the material of motion systems in grade XI SMA IT Wahdah Islamiyah students who did not listen to the murattal audio of Al-Qur'an is in the high category with a percentage of 62.04% and a mean of 74.393. The student's ability to remember the biological Latin names on the material of motion systems in grade XI SMA IT Wahdah Islamiyah who listened to the Al-Qur'an murattal audio is in the very high category with a percentage of 58.62% and a mean of 83.634. There is a difference in the memory ability of biological Latin names in the material for human movement systems between the grade XI students of SMA IT Wahdah Islamiyah

who listened to the Al-Qur'an murattal audio and the students who did not listen to the Al-Qur'an murattal audio. This can be seen from the results of hypothesis testing conducted using the SPSS with a 2-tailed sig value of $0.001 < 0.05$. Therefore, it can be concluded that the Al-Qur'an murattal audio affects the ability to remember biological Latin names in the human movement system material of the grade XI students of SMA IT Wahdah Islamiyah.

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