The Role of Memorizing the Quran In Enhancing the Cognitive Abilities of Students in Bohra Islamic Schools of Karachi, Pakistan.

Taher A. Gulamhusein and Marcella Momanyi

ABSTRACT

This study investigated the role of memorizing the Quran in cognitive development and enhancing the general aptitude of the students. The following research questions guided the study: In what ways does the process of memorizing the Quran improves an individual's aptitude and cognitive and performance? How does memorizing the Quran an individual's time management skills? How does memorizing the Quran enhance an individual's problem-solving skills? The study was anchored in the Cognitive theory of learning supported by theories of Memorization. Convergent Parallel Mixed methods design guided the study. The target population was all teachers and students in Karachi, Pakistan. Purposive and stratified random sampling techniques were used to select a sample size of 50 students and 50 teachers from five different schools in Karachi, Pakistan. Data collection instruments were questionnaires and interview guides. Quantitative data were cleaned and entered into a computer to generate frequencies and percentages that summarized data and presented in figures. Qualitative data from interviews were organized into themes and reported using narratives. Key findings showed that memorization of the Quran has enhanced the cognitive abilities of the students and the process of memorizing the Quran has enabled the students to manage their time efficiently and developed better problemsolving skills. Memorizing the Quran requires alternative techniques and methods to achieve various tasks. The study, therefore, recommended that memorizing the Quran should be encouraged in all schools in Karachi, Pakistan. Not only in Islamic Studies Institutes and schools.

Keywords: Quran, Memorization, Bohra, Cognitive Abilities, Karachi

Date of Submission: 01-12-2020	Date of Acceptance: 15-12-2020

I. INTRODUCTION

Memorizing the Quran and reading it regularly is a much-blessed action in Islam. Memorization of the Quran is the process that develops several cognitive skills resulting in general enhancement of the individual's aptitude. As the brain is the basic and vital organ of human development and attainment of skills, memorizing Quran not only develops the power of memorization but also enhances the retention of knowledge, concentration span, consistency, working in tense conditions, and overcoming distraction. Subsequently, memorizing Quran produces the power to easily acquire other complex skills and aptitudes.

Numerous quotes from Prophet Mohammad SAW and His companions are expressed and countless benedictions and bounties are bestowed on the one who does memorization of the Quran and teaches others. The person is titled as the best of all because of the learning and teaching of the Quran. As quoted:

"The best of you are those who learn the Qur'an and teach it"- Ibn Kathir

For centuries Muslim scholars have discussed and analyzed the teaching in the Quran. Similarly, many researchers, especially in the contrary world have discussed the intellectual benefits of memorizing the Quran. They scientifically explain the benefits of memorizing the Quran in enhancing the cognitive and general aptitude of an individual. However, due to the hassle of life and prioritization of other academic fields, Muslims tend to deprioritize their culture and a valuable asset, Quran, which can help their children in enhancing their intellectual ability. When we look at the statistical analyses of the Islamic Republic of Pakistan, the no. of children who memorized the Quran in 2010 has decreased by 10% in 2020. Mainly because the educational system does not give importance to memorizing the Quran, compared to other curricular studies. The current research aims to explore the effects of 'Hifz' (Memorizing the Quran), as a means of early religious education on the later academic achievement of an individual.

Memorization of the Quran is the process that develops several cognitive skills resulting in general enhancement of the individual's aptitude. As the brain is the basic and vital organ of human development and attainment of skills, memorizing Quran not only develops the power of memorization but also enhances the retention of knowledge, concentration span, consistency, working in tense conditions and overcoming distraction. Subsequently, memorizing Quran produces the power to easily acquire other complex skills and aptitudes.

Like any religious scriptures, the Quran also holds a very important position in a Muslim's life. People along time have indulged in the act of memorization of the Quran. Be it Arabs or non-Arabs. In this day and age, the reverence shown to the scripture is unique and a lot of emphases are done within Muslim homes to have their children not only adopt the meanings of the Quran in their actions but also to memorize the verbatim words of the Quran. Children from a young age are enrolled in full-time Quran memorization (hifz) programs in their local schools or Mosques and some study it part-time. Adults try to commit the Quran to memory even if their memory is weak. The one who commits the Quran to memory is shown a lot of respect and in certain cultures, once a youngster completes its memorization the parents would hold a Quran memorization party known as an Amin. In this celebration, the young child is given recognition for his/her achievement, asked to recite a few passages from the Quran and prayers are made for the young child (Khan, 2014).

The current research aimed to explore the effects of Hifz, as a means of early religious education on the later academic achievement of Huffaz. Hifz is a part of religious education that a person practices, mostly in the early years of age. Hifz is a complex, complicated, tough, and memory-based task. The individual who memorizes the Quran certainly shows the effects of Hifz on his later academic achievements. Educational accomplishment refers to the practical achievements of the students after completion of a course of study (Academic achievement, 2009). In other words, academic achievement is a process that involves the accumulation of both i.e. understanding novel skills and refining the prevailing ones (Entwisle& Alexander, 1990; Pungello, Kuperschmidt, Burchinal& Patterson, 1996). Hifz involves many memory enhanced practices. To memorize every word of the Quran, exercises such as elaboration, visual imagery of the words, the selfreferent encoding of the text of the Quran, sequencing, chunking, and mnemonic coding are in practice today. Hifz as well as academic achievement both involve enhanced memory capacity and storage. So, it can be assumed that Hifz as an early religious practice prepares and enhances the memory capacity for further memorization of information gained by senses to the brain. Therefore, command over foundational notions assists for deeper considerate of further crucial and critical tasks (Baroody, 2003; Ferrari & Sternberg, 1998; Hiebert&Wearme, 1996). Thus, it can be said that the practice of various brain exercises in Hifz plays an essential role in acquiring high academic achievement for an individual who has memorized the Quran.

Statement of Problem

Due to modernization and the indulgence of secularism in our societies many people in the Muslim community regard the memorization of the Holy Quran as an act only to be performed by those who are very religious and confine their lives towards religious contributions. Memorization of the Quran is not the only pious Islamic activity, but it's an effective way for cognitive, aptitude, and moral development, and thus produces greater academic performance.

Secularism has led to the thinking that memorizing the Quran is only meant for pro-Muslims. This is not the case since studies have shown that memorization of the Quran develops the Cognitive abilities of the students, makes an individual a better thinker and a problem solver. Available literature shows that several studies have been conducted in the world regarding the benefits of memorizing the Quran.

For instance, a study conducted by Lahore University in central Pakistan in (2006), targeted the Muslims who have memorized the Quran to investigate their work routine and prayer obedience. Key findings showed that 93% of the people who had memorized the Quran were punctual in reporting to their workplace. However, the study never focused on other aptitude developments of the people who memorize the Quran, which the current study focused on.

Another study conducted by the International Islamic University of Malaysia conducted by Ariffin, Abdullah, and Suliaman (2014) showed the importance of time management according to the Islamic perspective. However, the study did not focus on how memorization has developed the cognitive abilities and general aptitudes of the students. This necessitated the need for the current study on how memorization of the Quran affects all the important characteristics of a human being.

Theoretical Framework

Cognitive Learning Theory

Recent views of learning and cognition are contrasted with the cognitive learning theories of the late 1950s and early 1960s. In particular, Bruner's ideas are contrasted with current theoretical efforts. Bruner's ideas led to what he termed the spiral curriculum, a representation of cognitive structures based on the notion of hierarchy, in which early learning provides the foundation for later learning. Current cognitive views, though still indebted to Bruner, differ markedly, suggesting that a sufficient base of knowledge must be in place before advanced knowledge acquisition is fruitful. (Flank, 2015)

This theory was introduced by educational psychologist Jean Piaget (1963). Cognitivism is a theory of learning that views the learning process as an internal and active mental process, which develops within a learner. Increased mental capacity and skills help to learn better. This theory focuses on memory, critical

thinking ability, aptitudes, and prior knowledge of the learner as far as memorization of the Quran is concerned. Research shows that by 1960, the cognitivism revolution supplanted behaviorism as the overwhelmed worldview which concentrates on internal mental exercises. The contributors to this theory in their various works include Gagne, Briggs, and Wager (1992). However, Cognitive learning theory is not free from criticism. Behaviorists see this theory as weak due to the abstract nature of thoughts and the difficulty in defining them. The main weakness of the cognitive approach is that it refers to cognitive processes that we cannot directly observe. It relies heavily on interference.

In this theory, it can be concluded that a student learner is viewed as an information processor. The bigger the processor the better the performance. To enlarge the capacity of the processor in a computer, one installs extra RAM (Random Access Memory) in the motherboard. In our case memorization of the Quran works as a RAM which enhances the cognitive and later academic performance of a student.

II. REVIEW OF RELATED LITERATURE

According to Ghilan (2016), the brain is recognized to be a malleable organ that can change its connections and even its size of certain areas based on how active they become. Understanding how involved the brain is of someone learning the Quran using the traditional Muslim method can explain how they were able to achieve such success in their knowledge endeavors.

While learning the Quran, careful attention to listening and pronunciation of verses stimulates an area of the brain located in the temporal lobe. The temporal lobe is also where the hippocampus is located, which is the memory consolidation center. It's also the brain region activated for processing of musical sounds such as the case when the Quran is recited. Moreover, it becomes involved when the student engages in handwriting exercises similar to the ones on the wooden board. Where this matter is that this is the part of the brain whose activity levels and capacities have been correlated with a person's aptitude for learning new information. The more activation this area receives, and the more involved this activation is such as the case with the Quran, the better and more efficient it becomes in its functions for learning and memory.

The parietal lobes are also quite heavily engaged as one learns the Quran. The left parietal lobe deals with reading, writing, and functions in speech. It's also the part whose activity is important for math and logic problems. The right parietal lobe handles speech tone, which is related to elocution. It's also responsible for visuospatial relationships and understanding facial expressions. The front part is responsible for the sense of touch discrimination and recognition, which is active during handwriting. The back part plays an important role in attention. Both lobes are also activated during skill learning tasks. Overall, having parietal lobes that have been well activated translates to better logic and math-solving skills, eloquence in general speech, better ability at reading emotional states from facial cues, improved attention, and enhanced capacity for understanding visuospatial relationships.

Other brain regions the activity of Quran recitation strongly activate are the frontal lobes and the primary motor cortex. The frontal lobes activity deals with higher-order functions, including working memory, memory retrieval, speech production, and written-word recognition, sustained attention, planning, social behavior, in addition to others. For example, as the student is reading the Othamni script, his brain must quickly decide on the proper pronunciation of the word, which without the diacritical marks means it must be distinguished from other possibilities that include not only wrong words, but also wrong enunciation depending on the specific recitation he's using out of the 10 valid ones. The amazing thing about this is that the brain after practice will do these things without conscious control from the student. This trains the area of the brain responsible for inhibition, which is important for social interaction. Children with ADHD have been shown to have this area to be under-developed.

Given the Quran's content that for example includes descriptions of individuals and places, it activates the occipital lobes, which are involved in generating mental imagery. This brain region is also important in visual perception. Becoming active as a result of generating mental imagery indirectly improves visual perception capacities since the area activated is within the same region. The Quran is also rich in its content for history, parables, and logical arguments, all of which recruit different areas that become more efficient and better connected as they are continually activated due to the consistent review sessions.

Putting all this together, it's no wonder Muslims were able to make such vast contributions to human knowledge in a relatively short amount of time, historically speaking. After the aspiring student during the height of Muslim rule has mastered the Quran, his education in other sciences began by the time he was in his early teenage years. Given the brain's malleable nature, the improved connections in one region indirectly affect and improve functions in adjacent locations. The process of studying the Quran over the previous years has trained his brain and enhanced its functions relating to visual perception, language, working memory, memory formation, processing of sounds, attention, skill learning, inhibition, as well as planning just to name a few. Now imagine what such an individual will be able to do when they tackle any subject. It makes sense how

someone like Imam Al Ghazali can say he studied Greek philosophy on the side during his spare time and mastered it within 2 years. (Ghilan, 2016).

A study was conducted by NaziaNawaaz in Shaheed Benazir Bhutto Women University, Peshawar, Pakistan to investigate the effects of memorizing the Quran (Hifz) in relation to academic achievement and socio-cultural life of Huffaz. For the said purpose, a Purposive sample of 36 Huffaz, (N=36) from different colleges and universities were approached. Results were compiled and assessed through SPSS, Content analysis technique and percentages. The results revealed a significant difference in the academic achievement of Huffaz before and after Hifz. Moreover, the Content analysis showed overall positive impacts on education and socio-cultural life of Huffaz

A similar study conducted by a Lecturer at the Department of Early Childhood Teacher Education, Universitas Muhammadiyah Surakarta, Indonesia (2019), indicates that memorizing Quran (tahfiz Quran) affected cognitive intelligence in kindergarten students. The research was conducted at Mardisiwi Islamic Kindergarten, Surakarta, Indonesia. The population consisted of a student group at the kindergarten. Ten students of the group were selected as the samples using a saturated sampling technique. The data source consisted of kindergarten students, a recapitulation of evaluation towards students, and data on students. The data was collected through tests, observation, documentation, and interviews. The kindergarten students should memorize Al Insyirah surah of the Quran using the Tasalsuli method. The observation of cognitive intelligence results was measured before (pre-treatment) and after the treatment (post-treatment). The results revealed that the procedure of memorizing the Quran improved children's cognitive intelligence.

The research concluded that memorizing Quran in kindergarten might positively improve the children's cognitive intelligence. The cognitive intelligence score of children was 25.40 after the treatment. The score had an improvement of 5.00 then the pre-treatment test with a score of 20.40. The pre-treatment test resulted in a 63.75% improvement, while the post-treatment test resulted in 79.38%. The difference was 15.63%. (Slamet, 2019)

When neuroscientist Mohamed (Ghilan) researched the reason for unparalleled scientific discovery and advancement by Muslims during the golden age of Islam, he found a link between memorizing Holy Quran, improved thinking and scientific discovery. When learning the Holy Quran, careful attention to listening and pronunciation stimulates an area of the brain in the temporal lobe which is the memory consolidation center. The more activation this area receives, such as what occurs when memorizing Holy Quran, the better and more efficient the temporal lobe becomes in its capacity for learning and memory. His findings shed new light on what some scientists have admitted was a rate of achievement by Muslims yet to be replicated anywhere in the world. In fact, one non-Muslim professor of a class on the History of Science stated that were it not for political problems and discord, Muslims would have reached the moon by the 1400s. Today traditional methods of education are difficult to locate. Mr. Ghilan reported that he found this method of teaching the Holy Quran among the Bedouin scholars in the Sahara desert of West Africa. They are brilliant. However because they do not have access to modern technology and science, their brilliance is limited to Islamic sciences. He suggested that the world needs a "Traditional Islamic Education/ Technology" hybrid program that places the Holy Quran at the center of the education system.

III. METHODOLOGY

The study employed a mixed-methods design, specifically convergent parallel mixed-methods design. This method involves the collection of both quantitative and qualitative data, analysis, and integration of both forms of data. Convergent parallel mixed methods design was preferred to the other mixed methods designs for its suitability and strengths in collecting, analyzing, and integrating quantitative and qualitative research simultaneously in a single study as advanced by Creswell (2013). In addition, the convergent parallel mixed-methods design enabled the combination of both quantitative and qualitative research in order to provide a better understanding of a research problem than either the research approach alone. A cross-sectional survey was preferred to collect data from participants at once in a short time. A cross-sectional survey design for the quantitative approach was suitable for this study because it is an efficient strategy for accessing data from many informants such as teachers and students. Quantitative data generated through survey design are easily adaptable to statistical data analysis methods and summarized in frequencies and percentages among others. To retrieve the qualitative data, interviews were conducted for both, teachers and students.

The target population for this study includes 10 professional teachers having at least ten years of experience and 30 Students who completed the memorization of the Quran or are pursuing it from five private (secondary) schools of Karachi for the research program. There are a total of 5 Islamic Bohra community schools in Karachi. Consisting of 351 students in total. This study is conducted upon 50 students in total from 5 different schools. the sampling method will be stratified in order to not ignore the gender differences within the population. Out of the 50 students, 25 are male and 25 are female, similarly, the staff consists of 7 male teachers and 3 female teachers. Which is 50-50% of the total number of teachers.

As the nature of the question demanded, the researcher selected five private schools in Karachi. They comprised of 5 Islamic Bohra schools with a sample size of 351 students in total, and 92 teachers. The purpose of sampling is to get rich and relevant data. To collect and generate maximum meaningful data, the researcher used a purposive sampling technique to select the study participants. According to Merrium (1998), the purposive sample is based upon the assumptions that help the researcher to gain insights, to develop understandings, and to explore the situations. In such a situation, a purposefully selected sample could be the most suitable source to develop maximum learning.

IV. FINDINGS AND DISCUSSIONS

The research sought information from participants on how memorizations of the Quran help students to improve their aptitude and cognitive performance. It is assumed that memorization should enable students to grasp educational concepts better than others. A total of 50 students from 5 different schools in Karachi, Pakistan, were asked if the process of memorizing the Quran has enabled them to grasp educational concepts better than others. To determine whether the students have higher cognitive skills, due to the memorization of the Quran, student participants were given several statements and asked to indicate their level of agreement on the listed statement on memorization of the Quran using the following Likert scale

Key: SA=strongly agree, A=agree, UN=Uncertain, D=Disagree, SD=Strongly Disagree

Does the process of Memorization of Quran Improve Individual Aptitude and Cognitive Performance



Figure 6 clearly shows that 86% of the students strongly agreed and 12% Agreed with the fact that memorizing the Quran has helped them Grasp educational concepts better than others. However, 2% were uncertain and 0% disagreed with the fact. Therefore, the findings prove that memorizing the Quran enhances their cognitive abilities, especially focus, which helps them to grasp educational concepts better.



The results show that none of the teachers strongly agree, and 6% agree with the fact that when the students memorize the Quran, they do not enjoy other learning activities. However, 16% are still uncertain. Whereas, 58% and 20% of teachers Disagree and strongly disagree respectively. Which is the majority, because 78% of the respondents strongly disagree and disagree that those who memorize the Quran do not enjoy classroom activities. Therefore, we can derive that the teachers agree to the fact that memorizing the Quran help the students enjoy other classroom activities.

Response on Memorization of the Quran Helps with Coming Up with New Ideas

According to the chart out of 50 students. None of the students disagreed or strongly disagreed with the fact that



memorizing the Quran helps them with coming up with innovative ideas in learning. However, 14% of the students are uncertain. Whereas, 68% and 18% strongly agree and agree respectively.

The results show that 86% of the respondents agreed that they produce innovative ideas in class because the memorization process has enhanced their mental and creative capabilities. To memorize the Quran a

student has to innovate different ideas and master his/her prominent sense to memorize it efficiently. Not every student can memorize the Quran in an identical way. They have to think out of the box to ease the process. Depending on the individual. Therefore, this practice helps the students in devising innovative ideas not only in the Quran but also in other daily life activities



64% of the teachers strongly agree that memorizing the Quran helps the person to come up with innovative ideas. Similarly, 26% agree with the same fact. However, 10% of the teachers are still uncertain. and 0% of teachers disagreed.

Teachers are the better judges of the students' cognitive development. One of the teachers in his interview he agreed to the fact that the process of memorization has developed the thinking and innovative abilities of the students.

Memorizing the Quran Enhances Human Memory and Helps Retain Verbal and Visual Instructions Better Than Others.

According to the theory discussed by (Khan, 2014). Memorizing the Quran tweaks the amygdala and prefrontal cortex of the brain which are the main parts of the brain that are involved with memory. Below are the responses of the students and teachers to prove the above theory with the relevant study.



The figure reads that 78% strongly agree to the fact that memorizing the Quran has enabled them to memorize things quicker and it has enabled them to retain visual memory better than others. Similarly, 12% agree with the same statement. Whereas, 12% are uncertain and none of the respondents disagreed with the statement.

The reason because the majority of the respondents felt that due to memorizing the Quran their memory powered is enhanced because the Quran consists of millions of words. The students have to memorize those worse in the correct order. Without skipping or rephrasing any word. Due to this strenuous exercise, the human brain adapts to retaining such memory structures.(Ghilan, 2016). Similarly, to memorize the Quran

efficiently he/she has to compartmentalize the verses in form of pages in the brain. So, when they recite the Quran by heart, they visualize the verses on that particular page. Because of this practice, the students develop better visual memory retainment.

Respondents view on those who memorize the Quran are good at solving mathematical problems

Memorizing builds a 'working memory' that helps us hold enough information in our mind to make sense of new information coming in. Research by Weber State University found that students with underdeveloped short-term memory struggled to master concepts in math and reading.(Yusuf, 2016). According to (Ghilan, 2016) when the process of memorizing takes place the parietal lobe of the brain Is affected. Therefore, having parietal lobes that have been well activated translates to better logic and math-solving skills.

In the study conducted, the students and teachers were asked if memorizing the Quran has helped them in solving mathematical problems more efficiently. Below are the illustrated results of the findings.

The findings in the figure indicate that 34% of the respondents strongly agree to the statement that memorizing the Quran has enhanced their mathematical problem-solving skills. Similarly, 43% agree. Whereas,



21% of the respondents are uncertain and 2% disagree. it can be concluded from the findings that, majority of the respondents agree that the 'Brain Gymnastics' they exercise while memorizing the Quran, enables them to solve mathematical problems better and faster.

the Figure indicates that 27% of the respondents strongly agree that memorizing the Quran has enhanced their student's mathematical skills. Similarly, 41% agree to the statement. However, 28% are uncertain and 4%



disagree to the statement. None of the respondents strongly disagreed.

In an interview with one of the faculty members. She shared an example of her student who was a bit lagging in the mathematics subject. But after the student started memorizing the Quran, and by the time he completed, he had not only developed an interest but also was able to solve complex algebraic equations. Which he was not able to do them before. Therefore, the process of memorizing the Quran has a positive effect on the human brain.

V. SUMMARY

The research was conducted is to prove and depict that holistic development and cognitive stability with richer aptitude are very well attained through the memorization of the Quran. In the span of a few years, the child will be ready to accept the academic and field challenges of the world more than those children in normal streams. Indeed, every Islamic practice guided by Prophet Mohammad (SAW) is enriched with the combination of spiritual and physical benefits.

The purpose of this study is to prove that the Islamic Teaching Integrated System is more effective in the schools of Pakistan, as it preserves individual faith while enabling them to pursue and attain higher education. The foundation of Islamic Teaching and the source of all knowledge is the Quran. Memorization of the Quran is not the only pious Islamic activity, but it's the most effective way for cognitive, aptitude, and moral development. Consequently, it produces greater academic performance. The study was guided by three research questions.

VI. CONCLUSION

This research was a positive step for diverting focus towards the memorization of the Quran and for attaining physical and spiritual benefits together. Moreover, it results in a consensus where teachers agree that students should memorize the Quran to attain better results academically and for their personality development collectively.

Memorizing Quran does improve academic results as the majority of the respondents both teachers and students agreed with this statement and experienced it because this is the process that boosts the memory and memorizing power of a person. Through the study, it was supported that the general aptitude, for mainly students' working under pressure skills, is improved and developed by memorizing Quran. Also, their concentration span in every work increase. They could make logical relations between complex realities and also could find and recognize them from the facts occurred, problem-solving skills of these students are improved significantly, punctuality and consistency becomes their part of living and working style, management skills – especially time management and organizational skills get engraved in their habits.

VII. RECOMMENDATIONS

Memorizing Quran is proved to be a rich activity for cognitive development as well as the development of the character of a person and its attributes. It allows one to inherit a person's basic aptitudes of life such as recognizing logical relations, working under pressure, concentration span, and consistency in work.

Therefore, it is recommended for teachers who are teaching students who are under the process of memorization of Quran to facilitate them, not give them the burden of homework and always keep encouraging them for such a high esteemed work, because consequently the student will acquire and recover the missed work even faster than other students' because his/her cognitive development has reached the par excellence according to the individual level. This activity will support his/her academics and personality development simultaneously.

It is also recommended for students who have achieved the goal to work out and help other students for the same. Students who are focused on it should maintain their focus without distraction. They should prepare themselves and keep motivating themselves by saying to their souls "I am capable of memorizing the Quran; I can do it." It resembles a climb to the peak of the mountain where the mountaineer will face thousands of tragic situations, but on his/her willpower he/she will climb up the peak despite the obstacles. Therefore, a person has to prepare him/herself physically by taking good care of him/herself and mentally by not getting distracting by other persuasive things and maintain the focus on the target. Moreover, regularity and consistency will be the basic component for him to reach the goal.

Management and other bodies sometimes also discourage these kinds of students by humiliation and forcing them to leave this course, but this should not be done. As this research gathered the interesting facts on how this process will help a child to develop dynamically and in a year or two the results will be on the board.

The findings of this research will be prominently found in those who have completed the memorization of the Quran and are in a normal educational stream. As well as those students who are still striving for the purpose, findings will be less prominent in them, because they are solely focused to attain goals. According to feedbacks from the experienced professional teachers and students only want to do the Quran and nothing else, because their point of concentration and focus is the completion of the memorization of the Quran.

REFERENCES

- [1]. Aaker, D. (2013). *Marketing research* (3rd ed.). New York: University of Columbia.
- [2]. Adamec, L. W. (2001). Historical dictionary of Islam. Lanham, Md: Scarecrow Press.
- [3]. Armiun, R. R. (2013). Cognitive Strategies of Encoding, Storage, and Retrieval of Lexicon Popular *Techniques Applied by Iranian French Language Learners*. Tehran, Iran: Canadian Center of Science and Education. (p.177)
- [4]. Al Hafiz, M., Yusof, M., Ghazali, M., & Md. Sawari, S. (2016). Descriptive Qualitative Teaching Method of Memorization in The Institution of Tahfiz Al-Quran Wal Qiraat Pulai Condong and the Students' Level of Academic Excellence. *Mediterranean Journal Of Social Sciences*. doi: 10.5901/mjss.2016.v7n1s1p79
- [5]. Balbo, M. (2005). International Migrants and the City, London, Oxford University Press
- [6]. Bingham, W. (1987). *Aptitudes and aptitude testing* (2nd ed., p. 132). New York and London: Pub. for the National occupational conference by Harper & Bros.
- [7]. BOYLE, H. N. (august 2006). Momorization and Learning in Islamic Schools. Comparative
- [8]. Education Review, vol 50, no 3, 478-494.
- [9]. Bod, D. (2015). *The Theories of Jean Piaget vs. The Theories of Lev Vygotsky*. 20-27, Virginia, AU publications.
- [10]. Babin, B., Zikmund, W., Quinlan, C., Carr, J., & Griffin, M. (2013). Business research methods (1st ed., pp. 34-123). London: Oxford.
- [11]. Curran, S. (2010). Research ethics are essential: ethical considerations for research in cross-cultural settings. In Perecman, E., & Curran, S. R. A handbook for social science field research: Essays & bibliographic sources on research design and methods (pp. 197-216). : SAGE Publications, Inc. doi: 10.4135/9781412983211
- [12]. Carter, P. (2005). *The Complete Book of Intelligence Tests*. Chichester England: John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester, West Sussex PO198SQ, England.
- [13]. Clinical Tools, Inc,,Coulehan, M. B., Well, J. F., & United States. (2006). *Guidelines for Responsible Data Management in Scientific Research*.
- [14]. DeVries, R. (2000). Vygotsky, Piaget, and Education: a reciprocal assimilation of theories and educational practices. *New Ideas in Psychology*, *18*(2-3), 187-213. doi: 10.1016/s0732-118x(00)00008-8
 [15] Fixed A. D. (2015). *The Science International Psychology*, *18*(2-3), 187-213. doi: 10.1016/s0732-118x(00)00008-8
- [15]. Flank, A. D. (2015). *The Spiral and the Lattice*. pp. 134-153.,
 [16]. Gage, N. (2010). *Cognition, Brain, and Consciousness* (pp. 325-359). Sydney: Academic Press.
- [17]. Ghilan, M. (2016). How the Quran shapes the brain IslamiCity. Retrieved 19 May 2019, from https://www.islamicity.org/5657/how-the-quran-shapes-the-brain/
- [18]. Harrison, R. (2013). Using mixed methods designs in the Journal of Business Research, 1990–2010. Journal of Business Research, 66(11), 2153-2162. doi: 10.1016/j.jbusres.2012.01.006
- [19]. Khan, U. (2014). *Memorization of Quran.*(p, 1-29) https://www.researchgate.net/publication/269279375, JamiahJazriyyah, Online Forum of Islamic Theology Inc
- [20]. Ko, P. C., Duda, B., Hussey, E., Mason, E., Molitor, R. J., Woodman, G. F., & Ally, B. A. (2014). Understanding age-related reductions in visual working memory capacity: Examining the stages of change detection. *Attention, Perception, & Psychophysics, 76*(7), 2015– 2030. https://doi.org/10.3758/s13414-013-0585-z
- [21]. Kumar, R. (2015). *Research Methodology*, (p 45-200) A step-by-step guide for beginners.University of Western Australia, Australia, SAGE Publications Inc.
- [22]. Lavrakas, P. J. (2008). Encyclopedia of survey research methods (Vols. 1-0). Thousand Oaks, CA: Sage Publications, Inc. doi: 10.4135/9781412963947
- [23]. Robbins, D. (2003). Vygotsky's and A.A. Leontiev's semiotics and psycholinguistics: Applications for education, second language acquisition, and theories of language. Westport, Conn: Praeger Publishers.
- [24]. Mulder, A., Ganesh, R., Capriotti, L., &Paramekanti, A. (2010). Spiral order by disorder and lattice nematic order in a frustrated Heisenberg antiferromagnet on the honeycomb lattice. *Physical Review B*, 81(21). doi: 10.1103/physrevb.81.214419
- [25]. Memon, B. (2020). 5 Quran Memorization Tips for Busy People. Retrieved 5 January 2019, from https://quranacademy.io/blog/5-quran-memorization-tips-for-busy-people/
- [26]. Nemanja. (2012). Responsible Conduct in Data Management. Chicago, Illinois, USA.https://ori.hhs.gov/education/products/n_illinois_u/datamanagement/dmmain.html
- [27]. Nafi, N., Mokhtar, W., &Imas, M. (2019). The Holy Quran Memorization in Globalization Era. International Journal of Academic Research in Business and Social Sciences, 9(11). doi: 10.6007/ijarbss/v9-i11/6579
- [28]. Sajjad, M. (2016). *Basic Guidelines for Research*: An Introductory Approach for All Disciplines (Ed: 1) Chapter: 7Publisher: Book Zone Publication, Chittagong-4203, Bangladesh

- [29]. Schutt, R., & O'Neil, C. (2013). Doing data science: Straight talk from the frontline.
- [30]. (p, 143-195) Sebastopol, California
- [31]. Seidman, I. (2006). *Interviewing as qualitative research:* A guide for researchers in education and the social sciences. New York: Teachers College Press.
- [32]. Gaston, J. W., &Shambaugh, I. C. (1996). *A guide to the Aims program: the aptitude handbook*. Dallas, Tex. (12160 Abrams Rd., Suite 314, Dallas 75243): Aptitude Inventory Measurement Service.
- [33]. Sharma, A. (2013). 3 Main Theories That Explain How We Remember. Retrieved from https://www.psychologydiscussion.net/memory/3-main-theories-that-explain-how-we-remember/648.
- [34]. Shaw, B. J. (2012). Dragons and Tigers: A Geography of South, East and Southeast Asia. Asian Studies Review, 36(3), 433–435. doi: 10.1080/10357823.2012.712653
- [35]. Shotter, J. (1993). Vygotsky: The social negotiation of semiotic mediation. New Ideas in Psychology, 11(1), 61–75. https://doi.org/10.1016/0732-118X(93)90020-E
- [36]. Slamet, S. (2019). The Effect of Memorizing Quran On the Children Cognitive Intelligence. *Humanities & Social Sciences Reviews*, 7(3), 571–575. doi: 10.18510/hssr.2019.7384
- [37]. Taherdoost, H. (2016). Validity and Reliability of research instruments. International Journal of Academic Research in Management, 28-36.
- [38]. Yusuf, S. H. (2016, November 24). Quran Academy. Retrieved from queranacademy.io: https://quranacademy.io/blog/health-benefits-memorizing-quran/
- [39]. Abraham, K. (2002). Basic principles of psychoanalysis. Lanham, MD: University Press of America.
- [40]. Higbee, K. L. (2005). Your Memory: How It Works and How to Improve It.
- [41]. http://academic.udayton.edu/legaled/online/exams/memory04.htm. Hume, D. (2003). The Elements of Mentality. Toronto, Ontario, Canada: ECW Press.
- [42]. It, Y. M. (2015, August 16). http:// academic.udayton.edu. Retrieved August 16, 2015, from http:// academic.udayton.edu/legaled/online/exams/memory04.htm
- [43]. Wang, Y. (2009). Formal Description of Cognitive Process of Memorization. Calgary: Theorotical and Emperical Engineering Research Centre.

Taher A. Gulamhusein. "The Role of Memorizing the Quran In Enhancing the Cognitive Abilities of Students in Bohra Islamic Schools of Karachi, Pakistan." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 25(12), 2020, pp. 52-62.
