

Critical Analysis of 'Aql and Brain in the Paradigm of the Qur'an and Neuroscience and Its Contribution to the Development of Islamic Education

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Abstract

The purpose of this study was to analyze the meaning of *nāṣiyah* in Tafsir Salman from a neuroscience perspective. The development of neuroscience and Islamic education in this modern era is in line with the emergence of new findings, namely research about the meaning (*nāṣiyah*) in the Qur'an which some commentators define as "the crown" or in the neuroscience perspective behind the crown, namely the prefrontal cortex. The data of this research are sourced from literature studies through manual and digital searches, focusing on the *Nāṣiyah* interpretation paradigm in Surah Al-Alaq verses 15-16. The results of the study show that the meaning of *nāṣiyah* is identical to the meaning (forehead). In Salman's interpretation, what is meant by the crown is the brain, especially the prefrontal cortex. Therefore, *nāṣiyah* is a neurobiological trace of the brain in the Qur'an. The discovery of the concept of *nāṣiyah* as the neurobiological basis of the brain in the Qur'an will have broad implications for the development of the potential of 'aql (reason) in Islamic education. The essence of Islamic education, one of which is the development of the potential of reason as a manifestation of brain function (*nāṣiyah*) in the Koran.

Keywords: *Al-Qur'an, Nāṣiyah, Neuroscience, Islamic Education, Tafsir Salman*

Introduction

The main problem in this research is that neuroscience has so far been considered a secular science because there is no explicit trace of it in the Qur'an. Therefore, this science is less developed in Islamic education because it does not have formal legitimacy in sources of Islamic law related to scientific studies, namely the

Qur'an and Sunnah. According to Suyadi, the true essence of Islamic education is optimizing all human potential based on ability, all human potential depends on the power of the brain.¹ Neuroscience is also expected to help and facilitate this research which is very closely related to the discussion of the study of the brain and reason. In a study between the brain and reason are very different functions. Human reason is defined as *Al-'aql* which means preventing and prohibiting. When it is aimed at human attitudes, namely people restrain and curb their desires in bad deeds.² Taufiq argues that in his book (*Dalil Anfus Al-Qur'an*) and Embryology (the verses that explain the creation of man) he says: ("The most ambiguous part of the human body that surrounds the human body is the brain because it is the most important framework used by humans. to think between the physical and the spiritual, meaning that the external and internal factors of man depend on his brain".³

So far, research on the "concept of mind and brain in the Qur'an from a neuroscience perspective" has been researched, both in the context of analyzing, proving, finding the results of their research to produce concepts, models, or theories that have implications for interdisciplinary, multidisciplinary, and transdisciplinary in the interpretation of the Qur'an, especially the current phenomenon is Tafsir Salman. Based on research on data and research results, specifically in Google Scholar or Goggle Cendikia research, researchers found derivatives from several relevant studies. following current literature facts, namely the Kasno 2020 research, in a scientific journal entitled "Aql and the Brain in Neuroscience Studies and the Implications of Scientific Approaches in Islamic Religious Education".⁴ In his research, Kasno describes the implications of his scientific research on the 'Aql and brain on Islamic education in terms of the Neurosian approach which results in his research that "about the 'Aql and brain, especially in the Qur'an, there are many *lafadz* and meanings that explain

¹ Suyadi, Zalik Nuryana, and Niki Alma Febriana Fauzi, "The Fiqh of Disaster: The Mitigation of Covid-19 in the Perspective of Islamic Education-Neuroscience," *International Journal of Disaster Risk Reduction* 51, no. 2 (2020): 101848, <https://doi.org/10.1016/j.ijdr.2020.101848>.

² Suheri Suheri and Robbin Dayyan Yahuda, "Implementasi Hermeneutika Amina Wadud Atas Bias 'Politik Gender' Dalam Syariat: Rekonstruksi Aurat Pada Pria," *Al-Ahkam Jurnal Ilmu Syari'ah dan Hukum* 4, no. 2 (2019): 1-32.

³ Farkhani, Zakiyuddin Baidhawiy, and Adang Kuswaya, "Islamophobia in Spain: Inheritance of Reconquista and Hate Political Rhetoric," *Journal of Al-Tamaddun* 16, no. 1 (2021): 65-79.

⁴ Kasno, "Aql Dan Otak Dalam Kajian Neurosains Dan Implikasinya Pendekatan Saintifik Dalam Pendidikan Islam," *Muaddib: Studi Kependidikan dan Keislaman* 09, no. 02 (2019): 154-177.

relevant to the application of Islamic education with Neuroscience approach” but in this study, it has not touched on Islamic interpretation and education specifically.⁵ Fu’ad 2020 also conducted two similar studies, in scientific journal research entitled “Brain and Intellect in Neuroscience Verses” in his research Fu’ad said that “verses about ‘Aql and Brain are relevant to Neuroscience, meaning that there are many words that lead to the concept of ‘Aql and Brain in line with Neuroscience.⁶ Fu’ad in his research describes using tabulation-based data, meaning that it is just an example where the meaning of *ta’qilūn* has several meanings, which means that *tatafakkarun* has several meanings.⁷ In particular, have not specifically discussed it. If the researcher assumes “the research is not mature, the specifics are not sharp, the results of the research are on neuroscience verses from the perspective of the Qur’an”.

The literature above the two literature reviews proves that research on the concept of 'Aql and brain in the perspective of the Qur’an and Neuroscience which has implications for Islamic education is very important for research. Research that is in line with the globalization era of the development of Islamic education today, the position of this research is on research that focuses on discussing “The Concept of 'Aql and Brain in the Qur’an and Neuroscience in the perspective of Al-Qur’an Tafsir”. So this research has implications for science education as the researcher quotes in the theory or concept of Amin Abdullah who argues about “science and religion in interdisciplinary, multidisciplinary, and transdisciplinary discourse”. Researchers collaborate on the concept of 'Aql and Brain in the Qur’an in collaboration with Neuroscience which has broad implications for Islamic education today. The researcher also relates to the explicit interpretation of Salman’s interpretation. One of the Tafsir in the Qur’an written by contemporary Muslim scholars at the Bandung Institute of Technology and Muslim scientists today. In particular, this commentary discusses the short letters (*juz ‘amma*) in the Qur’an. One of the relevance of the findings is in the meaning of *nāṣiyah* in Surah Al-Alaq verses 15-16. Therefore, it becomes a novelty for this research to be continued in this modern era. The scientific assumption of this research can be said that this research is still new and very developed in the future, especially in the Quranic research discourse and neuroscience.

⁵ Ibid.

⁶ (Fu'ad Arif Noor, 2018)

⁷ (Fu'ad Arif Noor, 2018)

The purpose of this study is to analyze an analysis of “The Concept of Mind and Brain in the Qur’an and Neuroscience: Analysis of the Concept of *Nāṣiyah* in Tafsir Salman”. Looking for data related to the verse and the meaning of *nāṣiyah* and their influence on the brain and have implications for Islamic education. From this, the researcher developed the results of his research, examples related to the concept of the meaning of *nāṣiyah*. Conformity with the human fontanel (prefrontal cortex) as a place of thought, to find alternatives in a conflict. Where it affects the emotions, concerning the meaning of *nāṣiyah*, it is closer to the crown. Which serves as the center of human thought in behaving.⁸ Based on this background, it can be analyzed the problem formulation variables that need to be investigated to the sharpness of the research results. To what extent is the crown of a human being very influential in his life?, the relevance of Surah Al-Alaq with the Tafsir Salman approach, does it influence neuroscience? Is it true that neuroscience is a new science? it must be tested and researched with a study.⁹

This research is based on the argument that *nāṣiyah* in Surah Al-Alaq which appeared in the 7th century, along with the revelation of the Qur’an, has a meaning commensurate with the term brain in neuroscience which emerged in the 19th century.¹⁰ This research will dissect and prove several research findings, assisted by using a qualitative method approach in the literature review, and data sources from scientific journals (both national and international) and scientific books. Of course, in this case, it is very useful for researchers, to show the results of their research in discourse from a neuroscience perspective.¹¹ The research findings will become a new science in the field of the concept of *nāṣiyah* as the neurobiological basis of the brain in

⁸ Isabella Fritz and Giosuè Baggio, “Neural and Behavioural Effects of Typicality , Denotation and Composition in an Adjective – Noun Combination Task,” *Language, Cognition and Neuroscience* 1, no. 6 (2021): 1–23, <https://doi.org/10.1080/23273798.2021.2004176>.

⁹ Sergio Miguel Pereira Soares et al., “Determinants of Bilingualism Predict Dynamic Changes in Resting State EEG Oscillations,” *Brain and Language* 223, no. October (2021): 105030, <https://doi.org/10.1016/j.bandl.2021.105030>.

¹⁰ Suyadi and Hendro Widodo, “Millennialization Of Islamic Education Based On Neuroscience In The Third Generation University In Yogyakarta Indonesia,” *QJIS: Qudus International Journal of Islamic Studies* 7, no. 1 (2019): 173–202.

¹¹ Suyadi, “Hybridization of Islamic Education and Neuroscience: Transdisciplinary Studies of ‘Aql in the Quran and the Brain in Neuroscience,” *Dinamika Ilmu* 19, no. 2 (2019): 237–249.

the Qur'an from a neuroscience perspective, will have broad implications for the discourse of reason in Islamic education.¹²

The research in this article uses a qualitative approach. The data is generated through the library research method (Library Study). In a library, data is obtained through examining the research literature in the form of articles, books, scientific journals (National and International journals), as well as observing the analysis of scientific works that focus on discussing the concept of Surat Al-Alaq in Tafsir Salman.¹³ The formal object in this research is the concept of mind and brain in the Qur'an and neuroscience, while the material object is Tafsir Salman which is enriched by the results of his research with the concept of *nāṣiyah*.¹⁴

The data collection technique in this research is full sampling. Searching and retrieving data from national journals, international journals, reference books, scientific works (theses, and dissertations). As well as online references from Google Cendikia, the tool used is a documentation instrument, meaning that this research utilizes holistically and universally from primary and secondary data sources.¹⁵ The focus of this research is on the meaning of *nāṣiyah* in Surah Al-Alaq verses 15-16 from a neuroscience perspective, based on an explicit and perfect basis in the Qur'an with an analysis of the concept of Tafsir Salman which has implications for Islamic education discourse.

Contents

Result and Discussion

Based on the literature review (research library) and the applied methodology, the research results are as follows.

The meaning of *Nāṣiyah* from the perspective of Salman's interpretation

Tafsir Salman is one of the works of scientific interpretation (scientific) of modern Muslim scientists who still exist in Indonesia, who works as a Lecturer at the

¹² Suyadi and Sutrisno, "A Genealogical Study of Islamic Education Science at the Faculty of Ilmu Tarbiyah Dan Keguruan UIN Sunan Kalijaga," *Al-Jami'ah* 56, no. 1 (2018): 29–58.

¹³ (Arikunto, 2020)

¹⁴ (Sugiono, 2020)

¹⁵ Susan L Morrow, "Qualitative Research in Counseling Psychology: Conceptual Foundations," *The counseling psychologist* 35, no. 2 (2007): 209–235.

Bandung Institute of Technology (ITB) College. The existence of Tafsir Salman was motivated by the existence of regular weekly studies at the ITB mosque which was driven by Dr. Yan Orgianus (ITB Lecturer), who started it from 2010 to 2011. The content of Tafsir Salman is produced by a summary of routine studies written by the Team and led by Dr. Yan Orgianus, Tafsir Salman is one of the Tafsir that is not included in the category of works by previous scholars. However, the work of contemporary scholars' Tafsir which focuses on examining several letters contained in the Qur'an, namely Juz 'Amma.¹⁶ This study focuses on short suras in the Qur'an, for reasons considered more philosophical and paradigmatic. The initiators of the Tafsir Salman discussed and reviewed several letters, namely 29 letters, namely 28 Makkiyah letters, and one Madaniyah letter containing scientific studies. One of them is studying the Tafsir of Surah Al-Alaq verses 15-16 about Nāṣiyah ¹⁷.

Etymologically the word *nāṣiyah* originates from the adjective *nasa* which means to shave hair, therefore the word *nāṣiyah* has the meaning of shaving hair. Such as *aqiqah* activities at the age of seven months of babies which later with the development of knowledge of meaning is defined as a skull cavity, or called prefrontal, namely the limit of hair growth on the face.¹⁸ While Nāṣiyah is the limit of hair growth on the front of the head.¹⁹ Factually, *nasiyah* is pre-frontal, originally interpreted as the hair on the forehead (front of the brain) of humans.²⁰ The commentators, mostly interpret from the context of Tafsir or in Arabic text, which refers to sinners. With the development of scientific disciplinary discourse, it is discussed from a neuroscience perspective. This is related to the letter Al-Alaq verses 15-16. Signaling about *nāṣiyah* is the center of

¹⁶ Fathurrosyid, "Nalar Moderasi Tafsir Gus Baha'; Studi Kontestasi Pengajian Tafsir Al-Qur'an Di Youtube," *SUHUF: Jurnal Pengkajian al-Qur'an dan Budaya* 13, no. 1 (2020): 77-101, <https://journalsuhuf.online/suhuf/article/view/528/206>.

¹⁷ Annabel Teh Gallop, Muhammad Wildan, and Rahmat Hidayatullah, "The Social Integration of Hindu and Muslim Communities: The Practice of 'Menyama-Braya' in Contemporary Bali," *Studi Islamika Indonesian Journal for Islamic Studies* 28, no. 1 (2021): 151-167.

¹⁸ Ratna Sari and M Nurul Ikhsan Saleh, "Readiness to Implement Inclusive Education in Muhammadiyah Elementary Schools of Yogyakarta," *Afkaruna: Indonesian Interdisciplinary Journal of Islamic Studies* 20, no. 2 (2020): 263-287.

¹⁹ MÜCAHİT ÖZDEMİR and MERVAN SELÇUK, "A Bibliometric Analysis of the International Journal of Islamic and Middle Eastern Finance and Management," *International Journal of Islamic and Middle Eastern Finance and Management* 14, no. 4 (January 1, 2021): 767-791, <https://doi.org/10.1108/IMEFM-06-2020-0277>.

²⁰ Elihami Elihami, "E-Learning in Islamic Education and Pacasila on During Covid-19 Pandemic," *AoEJ: Academy of Education Journal* 3, no. 2 (2021): 6.

emotional control that humans have on their behavior. To overcome the problems encountered, as well as firmness in making decisions on their goals. So that Nasiyah is related to neuroscience studies. In scientific physiology, it is known as the pre-frontal cortex, which is the place where humans are highlighted in life in the world.²¹

According to Soni, he argues that the main basis for the meaning of Nāṣiyah in Surah Al-Alaq verses 15-16, in Tafsir Salman is defined as the crown. The function of the crown is almost the same as the "*qalbu*", the commentators generally interpret it as the heart. Not a complete unit of body organs, but only a collection of organs in the brain that works together so that humans can apply them in the world.²² Focus on the fontanel whose function involves various organs of the human body. In Tafsir Salman, it is explained that other people can touch the human head, but cannot hold the rope of death. This means that only Allah SWT knows about human death.²³ Ikhtilaf ulama' interpret *nāṣiyah* as a book of the head in front (big brain). In detail the explanation, whoever is taken pre-frontal then automatically that person loses consciousness and contracted the disease of forgetfulness. That's why this *nāṣiyah*. Regarding the creation of Allah SWT. To know the actions of his servant, as long as it is in the context of the truth in His way.²⁴ Study the *nāṣiyah* verse (forehead) with awareness and self-introspection (*muhāsabah*) in life. That every human life is supervised by Allah (*muroqobah*), for Allah SWT it is very easy to attract the human crown. According to the commentators, the crown of a human being will follow the character that is attached to him. If the character used continues to have positive activities, the crown will automatically be smart and healthy. On the other hand, if the crown is often used in negative thinking, then the crown is automatically abnormal and easy to get sick.²⁵ The following is a description of *nāṣiyah* related to the brain:

²¹ Novizal Wendry, Sefriyono Sefriyono, and M Yusuf, "The Map of Jihad Meaning Among Junior High School Students in Padang, Indonesia," *ESENSIA: Jurnal Ilmu-Ilmu Ushuluddin* 21, no. 2 (2020).

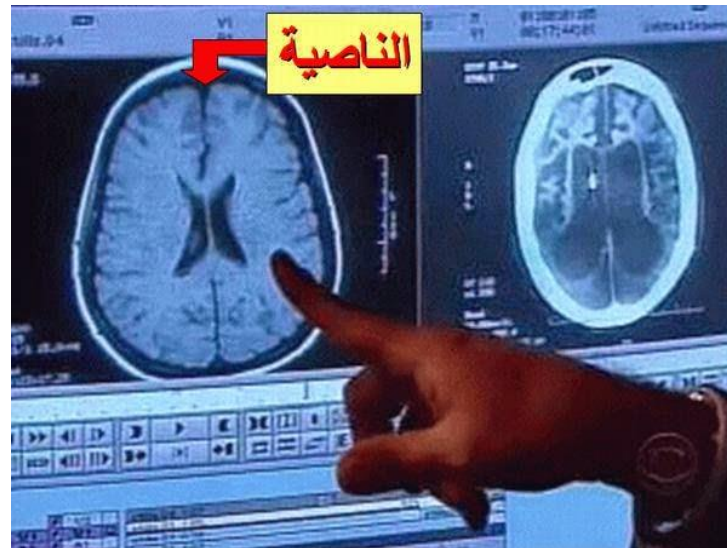
²² F Roji and I El Husarri, "The Concept of Islamic Education According to Ibn Sina and Ibn Khaldun," *Nazhruna: Jurnal Pendidikan Islam* 4, no. 2 (2021): 320-341, <https://ejournal.ikhac.ac.id/index.php/NAZHRUNA/article/view/1342>.

²³ Rahmawati et al., "Chinese Ways of Being Good Muslim: From the Cheng Hoo Mosque to Islamic Education and Media Literacy," *Indonesian Journal of Islam and Muslim Societies* 8, no. 2 (2018): 225-252.

²⁴ Irwan Abdullah, "COVID-19: Threat and Fear in Indonesia," *Psychological Trauma: Theory, Research, Practice, and Policy* 12, no. 5 (2020): 488-490.

²⁵ Fiona N Y Ching et al., "Preservice Teachers' Neuroscience Literacy and Perceptions of Neuroscience in Education: Implications for Teacher Education," *Trends in Neuroscience and Education* 21 (2020): 100144, <https://www.sciencedirect.com/science/article/pii/S221194932030020X>.

Figure 1 Location of *Nāṣiyah*



The human brain makes lies so that humans are not healthy spiritually and physically. The behavior of lying, lying is no different from an unhealthy human brain.²⁷ So far, scientists don't know what part of the human brain is responsible for such despicable behavior. In general, humans know that lying comes from speech, when in fact it is related to their brain. In terms of neuroscience that it is closely related to the crown.²⁸ After new findings based on the results of this study, that the front part of the human brain, which is located at the crown, is responsible for deceptive behavior and thoughts.²⁹ That's why this research is considered too late compared to the evidence of Allah's scientific cues in the Qur'an, in Surah Al-Alaq verses 15-16 which is called the crown (*nasiyah*). As stated in the picture 1 is a picture of the human crown. What has now become a neo-science discourse that has implications for the body, therefore this

²⁶ Abdul Hadi, "Bagian Otak Yang Membuang Bohong," *Eramuslim.Com*, last modified 2017, <http://soft-unik.blogspot.com/2014/07/bagian-otak-yang-membuat-kebohongan.html> di update jam 16:00.

²⁷ Mustaqim Pabbajah et al., "Pilgrimage to Bawakaraeng Mountain among the Bugis-Makassar in Indonesia: A Contestation between Islamic Identity and Local Tradition," *International Journal of Religious Tourism and Pilgrimage* 9, no. 1 (2021): 178-190.

²⁸ Kusmana, "THE QUR'AN, WOMAN, AND NATIONALISM IN INDONESIA Ulama Perempuan's Moral Movement," *Al-Jami'ah* 57, no. 1 (2019): 83-116.

²⁹ Betsy Ng, "The Neuroscience of Growth Mindset and Intrinsic Motivation," *Brain Sciences* 8, no. 2 (2018).

part of the human organ is the most important part of the brain, for activities in the world.³⁰

Neuroscience and *Nāṣiyah* in Interpretation of QS Al-Alaq Verses 15-16

The crown in neuroscience is termed the brain, the big task is Islamic education.³¹ According to neuroscience experts (*nāṣiyah*) is the main part that develops and has a main function in the regulation of the center of consciousness, logic, and long-term memory. Another thing is that *nāṣiyah* has a function as a controller of motor action and temporal integration of behavior.³² Neurons are interconnected to form a neural network that composes the prefrontal cortex so that interactions between bodies can run according to their functions.³³ *Nāṣiyah* covers 30 percent of the total human brain which is still actively developing up to the age of 20 years. This *nāṣiyah* is the most special part of every working part of the brain because any information that enters the brain must go through the *nāṣiyah* first.³⁴ To respond to all organs.

Parallel to the (frontal lobe) found in humans. The brain organ is very important to create ideas because this organ is the most important part contained in the content of the Qur'an. Even in the discussion of Surah Al-Alaq verses 15-16 on the meaning of *nāṣiyah*, it means that Al- gives a warning to humans to avoid negative influences on their minds.³⁵ For example, if there is a desire that violates the norms of Allah SWT, it will explicitly be damaged, lose the power of thought. Then there will be a significant loss of direction of consciousness. So that it can lead to excessive depression or the occurrence of forgetfulness.³⁶

³⁰ Yusra Sulaiman Al Nasser et al., "Impact of Students-Teacher Relationship on Student's Learning: A Review of Literature," *International Journal of Nursing Education* 6, no. 1 (2014): 167.

³¹ Chirul Mahfud, "Chinese Muslim Community Development in Contemporary Indonesia: Experiences of PITI in East Java," *Studia Islamika Indonesian Journal for Islamic Studies* 25, no. 3 (2018): 474-498.

³² Fajri Zulia Ramdhani and Rusmimayani Kurniawati, "Humanizing Islamic Religious Education in Bali During The Covid-19 Pandemic," *Tarbiya: Journal of Education in Muslim Society* 8, no. 1 (2021): 65-80.

³³ Asep Saepudin Jahar, "Bureaucraticizing Sharia in Modern Indonesia: The Case of Zakat, Waqf and Family Law," *Studia Islamika Indonesian Journal for Islamic Studies* 26, no. 2 (2019): 207-244.

³⁴ (Muslim, 2019)

³⁵ Branton Shearer, "Multiple Intelligences in Teaching and Education: Lessons Learned from Neuroscience," *Journal of Intelligence* 6, no. 3 (2018): 1-8.

³⁶ Yoyo, "Neo-Patriarchy and the Problem of the Arab Crisis: A Critical Study on Hisham Sharabi's Works," *Qudus International Journal of Islamic Studies* 6, no. 2 (2018): 251-267.

Human reason is mostly identical with the crown, which in the Qur'an is defined as *nāṣiyah*.³⁷ In Salman's Tafsir, the crown is not a unitary organ of the human body, namely a certain organ that coordinates with the human brain.³⁸ Some commentators also say that the rope of death, if there is damage to the (*nāṣiyah*) it will automatically lose its direction. He lost consciousness of his mind. Death occurs because it is also related to the heart, making the heart not beat in general. Verses meaning *nāṣiyah*, including verses (*kauniyah*) verses that show the power of Allah SWT, which can only be understood with *naqli* arguments. Understanding the power of Allah SWT and the depth of knowledge given to humans has no limits, signaling humans to always improve and compete in His Taqwa.³⁹ In Surah Al-Alaq 15-16 the word *nāṣiyah* means the crown as Allah explains in the verse, will uproot human life through the crown. In the word *nāṣiyah* for those who lie and sin. As in Salman's Tafsir, the explanation of some commentators is described as Abu Jahal.⁴⁰ Likened to a human brain containing negative elements, it can be ascertained that it will affect the outlook on life and the way of thinking.

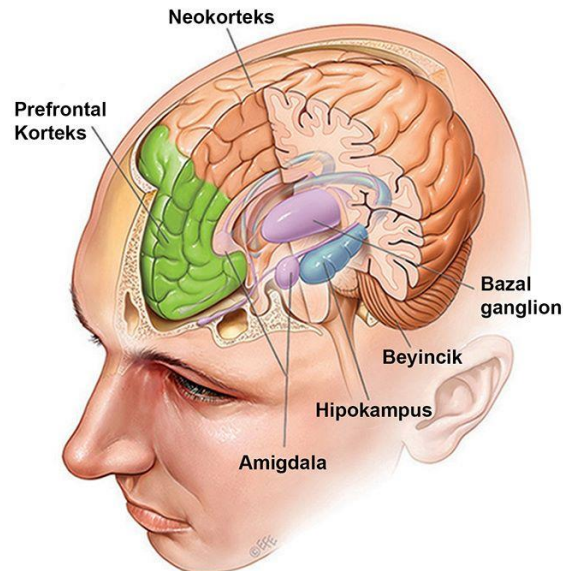
³⁷ Choirul Mahfud et al., "Islamic Cultural and Arabic Linguistic Influence on the Languages of Nusantara from Lexical Borrowing to Localized Islamic Lifestyles," *Wacana* 22, no. 1 (2021): 224–248.

³⁸ M. Zainal Abidin, "Reposisi Filsafat Islam Sebagai Basis Pengembangan Ilmu Integralistik," *Khazanah: Jurnal Studi Islam dan Humaniora* 1, no. 2 (2014): 1–14, <https://jurnal.uin-antasari.ac.id/index.php/khazanah/article/view/3481>.

³⁹ Mohammad Jailani, "Kajian Pendektan Hermeneutika Dalam Tafsir Al-Qur'an Perspektif Ulama Muslim Kontemporer," *Journal of Qur'an and Hadits Studies* 10, no. 1 (2021): 93–121.

⁴⁰ Hasse Jubba et al., "The Display of Religious Symbols in Public Space: The Contestation of Muslim and Christian Identities in Jayapura, Papua," *Humanities & Social Sciences Reviews* 8, no. 1 (2020): 642–650.

Figure 2: About the crown (Cortex prefrontal) in the concept of *nāṣiyah*⁴¹



Based on Figure 2, the concept of the crown (Cortex prefrontal), Rosidin categorizes the most important points regarding the concept of the crown in Tafsir Salman ITB as follows:⁴²

- a. The crown is the front part of the brain or what is called the prefrontal cortex, which functions as the center of awareness of the human thinking power, both wanting to do evil and wanting to do good. It can be said that the prefrontal cortex functions as a decision-maker in human planning. The prefrontal cortex also plays a role in controlling emotions and increasing human memory in the very long term (towards the future).
- b. The most important part of the brain, which functions as an attitude of self-control and the neurobiological nervous system that has implications for the human mind.
- c. Damage to the prefrontal cortex will have a very fatal impact on the brain. Such as changes in personality between unstable concentration, difficulty remembering and memorizing, and often forgetting or contracting the senile disease.

⁴¹ Ade Machnun S, "KORTEKS PREFRONTAL Dalam Al- Quran," last modified 2016, <http://www.stifinsemarang.com/2016/04/korteks-prefrontal-dalam-al-quran.html> di update jam 16.00.

⁴² Erwait Aziz, Irwan Abdullah, and Zaenuddin Hudi Prasojo, "Why Are Women Subordinated? The Misrepresentation of the Qur'an in Indonesian Discourse and Practice," *Journal of International Women's Studies* 21, no. 6 (2020): 235-248.

- d. Some commentators define the crown as the rope of death, meaning that only Allah knows about human death, as a sign of a servant's obedience to His Word.

The meaning of Nāṣiyah in Surah Al-Alaḳ 15-16, has a new understanding of the discourse in terms of the study of neuroscience in the context of Islamic education. It is easy to damage brain function if the pre-frontal does not function, namely the loss of morality. As contained in a narration about Schizophrenic criminals, which at that time could not be cured by psychological therapy, namely with alternative surgical lobotomy therapy. But nowadays, drug vaccines are very easy to get.⁴³ The human brain consists of 100 billion nervous system cells or neurons. Each neuron has a large number of fibers, which contain dendrites and axons.⁴⁴ Neurons are connected so that there are 100 trillion connections called synapses.⁴⁵ Stimulation of the nerves affects the inside of the neurons electrically. From one neuron to another, with synapse stimulation and chemical stimulation. In the discipline of neuroscience, it is known as a neurotransmitter. There are many (neurotransmitters) including dopamine, acetylcholine, serotonin, endorphins, and so on. All types of drugs affect dopamine in the VTA, nucleus accumbens, and prefrontal. Therefore, drugs are very dangerous, affecting brain damage and its functions.⁴⁶

Neuroplasticity is the power of neural cell circuitry (through the ability of nerve cells to change) by experience. This shows that humans are endowed with potential, both physical potential and spiritual potential.⁴⁷ In short, the notion of neuroplasticity

⁴³ Muhammad Iqbal, Universitas Islam, and Negeri Antasari, "NUANSA FIQH DALAM PEMIKIRAN TEOLOGI SYEKH MUHAMMAD ARSYAD AL-BANJARI PADA RISALAH TUHFAT AL-RĀGHIBĪN," *Khazanah: Jurnal Studi Islam dan Humaniora* 19, no. 1 (2021): 21–38.

⁴⁴ Mifedwil Jandra et al., "Oceanic Verses of the Qur'an and Their Pointers To Technological Solutions," *Heritage of Nusantara: International Journal of Religious Literature and Heritage* 8, no. 2 (2019): 243–268.

⁴⁵ Monika H Donker et al., "Observational, Student, and Teacher Perspectives on Interpersonal Teacher Behavior: Shared and Unique Associations with Teacher and Student Emotions," *Learning and Instruction* 73 (2021): 101414, <https://www.sciencedirect.com/science/article/pii/S095947522030709X>.

⁴⁶ Zuli Qodir et al., "A Progressive Islamic Movement and Its Response to the Issues of the Ummah," *Indonesian Journal of Islam and Muslim Societies* 10, no. 2 (2020): 323–352.

⁴⁷ Benaouda Bensaid, Salah Ben Tahar Machouche, and Mustafa Tekke, "An Islamic Spiritual Alternative to Addiction Treatment and Recovery," *Al-Jami'ah* 69, no. 1 (2021): 127–162.

is the brain's ability to modify nerve cells to adapt to environmental conditions.⁴⁸ The neuroplasticity of every human being can be applied in any way desired by way of practice and experience. Just like people who want to be smart, of course, there is a hard effort to learn to the fullest so that what they want is achieved.⁴⁹ If this is continuously done, it will become a good character and behavior, an appropriate experience and accepted by the surrounding environment.⁵⁰ With practice and life experience, one can change the character structure of the human brain in neuroscience, known as the neuroplasticity of nerve cells.⁵¹

According to Iip Farliha, the function of the nervous system is to monitor, integrate and respond to all information around the human organs. In the process of integrating information, there is a sensory interpretation in humans.⁵² In this case, it is closely related to the direction and decisions to be taken, such as skepticism (hesitating).⁵³ Anatomically, the nervous system consists of the central nervous system and the peripheral (peripheral) system.⁵⁴ The central nervous system consists of the brain and spinal cord. While the peripheral nerves have two main tasks, as sensory nerves, namely carrying impulses to the central nervous system.⁵⁵ While the second is a motor nerve that carries impulses from the central nervous system to the human senses. The fontanel is also defined as the prefrontal cortex, this is the most important

⁴⁸ Noza Aflisia, Nurwadjah Ahmad E.Q, and Andewi Suhartini, "The Urgency of Theological Foundations in Islamic Education in the Industry Era 4.0 towards the Society Era 5.0," *International Journal of Education Research and Development* 1, no. 1 (2021): 60-77.

⁴⁹ Samuel Di Luca et al., "Finger-Digit Compatibility in Arabic Numeral Processing," *Quarterly Journal of Experimental Psychology* 59, no. 9 (2006): 1648-1663.

⁵⁰ Anne L. Beatty-Martínez and Paola E. Dussias, "Revisiting Masculine and Feminine Grammatical Gender in Spanish: Linguistic, Psycholinguistic, and Neurolinguistic Evidence," *Frontiers in Psychology* 10, no. 5 (2019): 1-17.

⁵¹ Rachel I. Mayberry et al., "Neurolinguistic Processing When the Brain Matures Without Language," *Brain Maturation Without Language* 1, no. 4 (2017): 1-15.

⁵² Nur Aqilah Hazirah Mohd Anin and Nor Asiah Omar, "Sadaqah-Based Crowdfunding: Drivers of Muslim Donor Contribution Behavior," *Global Journal Al-Thaqofah* 1, no. 1 (2021): 1-10, www.gjat.my.

⁵³ (Iip Farliha, 2019)

⁵⁴ Wael M Y Mohamed, "Arab and Muslim Contributions to Modern Neuroscience," *IBRO History of Neuroscience* 169, no. 3 (2008): 255.

⁵⁵ Beatty-Martínez and Dussias, "Revisiting Masculine and Feminine Grammatical Gender in Spanish: Linguistic, Psycholinguistic, and Neurolinguistic Evidence."

part of the brain.⁵⁶ It is fed by neurotransmitters, which are the communication center between nerve cells with one another.⁵⁷

Positron Emission Tomography (PET) is a very sophisticated tool, one of the benefits of which can be used to observe the functions of the human brain, including the brain is growing well ⁵⁸. The nature of its neuroplasticity is that the connection of nerve cells can be interpreted as synapses. It is very susceptible to various changes affecting the basis of the human brain at the cellular or molecular level.⁵⁹ This is closely related to the morals that have an impact on humans. Moral training and character discipline guidance from an early age is very essential at the level of education and social institutions.⁶⁰ Habits that are not good in brain character such as consuming alcohol, brawls, juvenile delinquency are rampant, rampant pornographic videos, and free sex are immoral acts.⁶¹ The impact will quickly respond to the formation of a new circuit.⁶² If this continues to be done repeatedly, it will soon form a permanent brain structure or character that is difficult to change.⁶³ Likewise, good habituation habits must of course be instilled as early as possible so that the brain will change and adapt to good behavior.⁶⁴

According to Soni et al, in Tafsir Salman, it is explained that if there is damage to the prefrontal cortex, then there is damage to the human personality.⁶⁵ In the broadest

⁵⁶ Olga Iljina et al., "Neurolinguistic and Machine-Learning Perspectives on Direct Speech BCIs for Restoration of Naturalistic Communication," *Brain-Computer Interfaces* 4, no. 3 (2017): 186–199, <https://doi.org/10.1080/2326263X.2017.1330611>.

⁵⁷ Yoke Lian Lau, Chek Kim Loi, and Mohd Nor, "The Historical Development of The Study of Broca's Aphasia," *Malang Neurology Journal* 7, no. 2 (2021): 125–128.

⁵⁸ Ibrahim Onnur Akkurt, "Neurolinguistics: A Spectrum of Research Neurolinguistik: Bir Arastirma Spektrumu," *Turkish Journal of Educational Research* 2, no. 1 (2021): 24–27.

⁵⁹ Niels O. Schiller, "Neurolinguistic Approaches in Morphology," *Oxford Research Encyclopedia of Linguistics* 1, no. 8 (2020): 1–23.

⁶⁰ George Boon et al., "Emotional Intelligence in Distance Learning : A Case Study of English as a Second Language via Distance Learning," *National Research University Higher School of Economics Journal of Language & Education* 7, no. 3 (2021): 151–165.

⁶¹ Ahmed Alwishah, "Avicenna on Animal SelfAwareness, Cognition and Identity," *Arabic Sciences and Philosophy* 26, no. 1 (2016): 73–96.

⁶² (Asia et al., 2021)

⁶³ (DMM Sari & Prasetyo, 2021)

⁶⁴ Paul Jones and Vanessa Ratten, "Knowledge Spillovers and Entrepreneurial Ecosystems," *Knowledge Management Research and Practice* 19, no. 1 (2021): 1–7, <https://doi.org/10.1080/14778238.2020.1801363>.

⁶⁵ Saibah and Suyadi, "Constructivism Of Neurosains-Based in Building The Qur'ani Character Of SMP Muhammadiyah 1 Sleman Students," *Edukasi* 8, no. 1 (2020): 85–95.

sense, if humans experience damage to the human left brain, it causes prolonged stress and sadness (pseudo depression).⁶⁶ Meanwhile, if it occurs in the right brain will result in mental and mental disorders. This results in mental illness. (*pseudopsychopath*).⁶⁷ For example, in deviant sexual behavior, the prefrontal cortex will have problems. This means that humans are weak in biological relationships. Because it produces abnormal sexual behavior that is generated in his brain.⁶⁸

Nāṣiyah whose main function is the same as the brain is an organ of the human body which is located at the top of the human body.⁶⁹ inside the human head. In this case, it indicates how noble humans are compared to other Allah's creatures because the placement of the brain is not near the organs of disposal. Unlike animals, they are close to their excretory organs.⁷⁰ The meaning of *Nāṣiyah* is also many who say reason, in the form of derivation in terms of the Morphology of Language in the Qur'an, it is counted 49 times.⁷¹ The Qur'an explains that intelligent people are those who use the functions of their thoughts and feelings well.⁷² According to Quraish Shihab, to direct something that protects or prohibits committing sins and mistakes, one must use the word of his mind, in this case, it can be understood that every doing something must be based on reason and put common sense.⁷³

Mufassir's Perspective Nāṣiyah

Some interpretations show that *nāṣiyah*, better known as the crown, is a part of the main brain organ, which is located in the forebrain. According to biologists, the

⁶⁶ Annas Rolli Muchlisin and Khairun Nisa, "Geliat Tafsir 'Ilmi Di Indonesia Dari Tafsir Al-Nur Hingga Tafsir Salman," *Millati: Journal of Islamic Studies and Humanities* 2, no. 2 (2017): 239.

⁶⁷ Supratman Zakir et al., "Development of 3D Animation Based Hydrocarbon Learning Media," *Journal of Physics: Conference Series* 1779, no. 1 (2021).

⁶⁸ Hasna Azizah and Fatah Yasin Irsyadi, "Educational Game in Learning Arabic Language for Modern Islamic Boarding School," *Jurnal RESTI (Rekayasa Sistem dan Teknologi Informasi)* 4, no. 3 (2020): 489–496.

⁶⁹ (Cahyana's Grandson & Muhajir, 2021)

⁷⁰ Akmaliyah et al., "Child-Friendly Teaching Approach for Arabic Language in Nn Indonesian Islamic Boarding School," *International Journal of Language Education* 5, no. 1 (2021): 501–514.

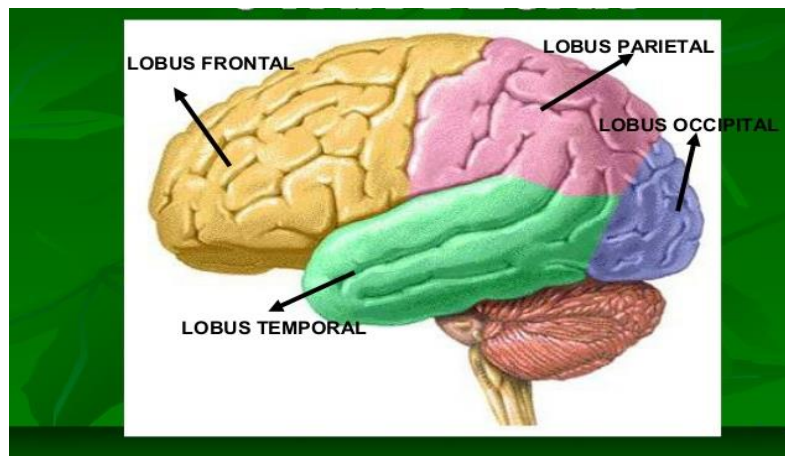
⁷¹ Arifka Mahmudi et al., "Classroom Management and Arabic Learning Process Based on Multiple Intelligences in Elementary School," *Arabiyat : Jurnal Pendidikan Bahasa Arab dan Kebahasaaraban* 6, no. 2 (2019): 222–237.

⁷² Mohd Hilmi Hamzah et al., "The Production of the English Stop Voicing Contrast by Arab L2 Speakers of English," *Indonesian Journal of Applied Linguistics* 10, no. 2 (2020): 434–444.

⁷³ (Sharif et al., 2020)

forebrain, which is often called the frontal lobe, is part of the central nervous system in the human brain.⁷⁴ The verse controls the central nervous system of the brain which functions as conveying information implicitly.⁷⁵ Information that requires further analysis to respond.⁷⁶ Verses 15-16 in Surah Al-Alaq are *asbabun nuzul* and its interpretation leads to warnings to humans, about the picture of people who believe and the picture of people who violate Allah's provisions. The following is a description of the explanation of the cerebrum (cerebrum) and the crown (frontal lobe):

Figure 3: About the cerebrum (cerebrum), fontanel (frontal lobe) ⁷⁷



The parts of the brain that function has different tasks, the brain carries out all the functions that it is aware of.⁷⁸ The brain will be responsible according to the stimulus to the experience made by humans based on their way of thinking.⁷⁹ As well as the ability to apply in various mental processes, such as memory in memory, emotional feelings, intelligence, communication, and behavior or personality. Including the cerebrum, the largest and most advanced part of the human brain.⁸⁰ The big brain

⁷⁴ Abdul Wahid Hasyim, "Al-Tariqah Al-Naqshabandiyah Al-Khalidiyah Fi Cianjur, Jawa Al-Gharbiyah: Ta'alimuha Wa Tuqsuha Wa Tatawwuratuha," *Studi Islamika* 27, no. 2 (2020): 1-56.

⁷⁵ (Cahyana's Grandson & Muhajir, 2021)

⁷⁶ (Zuhdi, 2015)

⁷⁷ (Sari, 2016)

⁷⁸ Qodir et al., "A Progressive Islamic Movement and Its Response to the Issues of the Ummah."

⁷⁹ Suhaim, Agustri Purwandi, and Akhmad Farid Mawardi Sufyan, "Binsabin Dan Tonggebban as Madurese Local Wisdom: An Anthropology of Islamic Law Analyses," *Al-Ihkam: Jurnal Hukum dan Pranata Sosial* 16, no. 1 (2021): 161-179.

⁸⁰ (Farikhatul 'Ubudiyah, 2020)

has the function of regulating all human activities, including intelligence (intelligence), memory (memory), awareness, and decisions.⁸¹ The cerebrum consists of the occipital lobe, which is responsible for vision, the temporal lobe, which is the center of hearing, and the frontal lobe, which functions as the center of personality awareness and communication center.⁸²

Based on the facts of research on the Frontal Lobe, it is explained that the control function of the brain organs is in that section. In this case, every word and deed can indeed be reviewed by the frontal lobe of the brain.⁸³ There is a similarity of scientific information that results in research that relates the facts of the study of the Qur'an with scientific facts about the Frontal Lobe.⁸⁴ Where *nāṣiyah* evidence is essential to research on Islamic education discourse, which is sourced from the Qur'an.⁸⁵ Information from the Qur'an relating to the crown is an explanation of nerve cells in human organs.⁸⁶ As the function and use of the explanation arguments above have been alluded to. This means that the function of human nerve cells contained in the Qur'an shows that the crown is a scientific discipline that has implications for Islamic education discourse.⁸⁷

The word *nasfa'* means holding, while *nāṣiyah* means the head.⁸⁸ In taking a good or bad attitude, the crown will always follow. Referring to the Surah Al-Alaq Verses 15-16, the meaning of *nāṣiyah* is "a lying crown of disobedience" in the perspective of

⁸¹ Stephan E. Vogel, Celia Goffin, and Daniel Ansari, "Developmental Specialization of the Left Parietal Cortex for the Semantic Representation of Arabic Numerals: An fMRI-Adaptation Study," *Developmental Cognitive Neuroscience* 12, no. 1 (2015): 61–73, <http://dx.doi.org/10.1016/j.dcn.2014.12.001>.

⁸² Muhammad Faiz Rofldi; Suyadi, "Tafsir Ayat-Ayat Neurosains (The 'Aql in the Qur'an and Its Relevance to the Development of Critical Thinking in Islamic Education)," *Jurnal At-Tibyan: Jurnal Ilmu Alqur'an dan Tafsir* 5, no. 1 (2020): 138–152.

⁸³ Tience Debora Valentina et al., "Making Meaning of Religious Values in Preventing a Fatal Suicide Act of a Bisexual Youth with Borderline Personality Disorder: A Qualitative Study," *Jurnal Psikologi* 48, no. 1 (2021): 80.

⁸⁴ (MA Abdullah, 2020)

⁸⁵ (Cahyana's Grandson & Muhajir, 2021)

⁸⁶ Yoyo, "Re-Reading Edward Said and Richard King 's Works on Orientalism," *Islam in World Perspective Symposium* 2, no. 1 (2020): 35–42.

⁸⁷ (Guidance, 2021)

⁸⁸ Abdulwahid Qasem Al Zumor, "Challenges of Using Emi in Teaching and Learning of University Scientific Disciplines: Student Voice," *International Journal of Language Education* 3, no. 1 (2019): 74–90.

Arabic syntax is defined as *Mudhaf* and *Mudhaf Ilaih*, namely the nature of.⁸⁹ The crown is very close to human nature and character.⁹⁰ According to Prof. Keith L Moore, in the miracle of the study of the Qur'an, information about knowledge about the brain has been explained and traces of its research exist throughout history.⁹¹ It is not found in medical books except in the Qur'an. What existed during the treatment of the Prophet Muhammad, in the discovery of the function of the Frontal Lobe which is closely related to the human brain.⁹²

In the discovery of the frontal lobe research in 1842, which occurred in Stik, one of the architects of development in America was stabbed in the head. Which affects the function of the nervous system, experiencing instability in activities.⁹³ It can be understood that neuroscience has been present in the civilization of science, along with the decline of the knowledge of the Qur'an.⁹⁴ As explained by the *mufasssir*, in the results of research on the frontal lobe, in the 7th century many Muslim scholars researched the brain and reason in the discourse of Islamic education.⁹⁵

The condition of the brain of a believer is described as identical with prayer, the person who prays is certain that his brain will be healthy and calm. Talking about prayer that cannot be separated from Fiqh terms. Worship movements in prayer are one part of the prayer requirements, namely examples of prostration movements.⁹⁶ If it is associated with the letter Al-Alaq verse 19 which reads (*wasjud waqtarib*), then the word *nāṣiyah* indicates the location of human consciousness. So that you don't sin and

⁸⁹ Mailis Triana, Cut Morina Zubainur, and Bahrin Bahrin, "Students' Mathematical Communication Ability through the Brain-Based Learning Approach Using Autograph," *JRAMathEdu (Journal of Research and Advances in Mathematics Education)* 4, no. 1 (2019): 1–10.

⁹⁰ L. Riskiningtyas and M. N. Wangid, "Students' Self-Efficacy of Mathematics through Brain Based Learning," *Journal of Physics: Conference Series* 1157, no. 4 (2019).

⁹¹ (Nawal A. Al Eid, 2020)

⁹² Muflihah Muflihah and Husain Aziz, "Developing Interactive Multimedia CD-Based Teaching Materials for Teaching Arabic Skill at Arabic Education Department of Islamic State University Sunan Ampel Surabaya," *Dinamika Ilmu* 18, no. 2 (2018): 195–210.

⁹³ (Wesley J. Wildman, 2020)

⁹⁴ H Verawati and U Hasanah, "The Modern Reform of Arabic Learning Paradigm and Its' Contribution toward the Development of Islamic Studies," *Al-Lisan: Jurnal Bahasa (e ...)* 6, no. 1 (2021): 71–84, <http://www.journal.iaingorontalo.ac.id/index.php/al/article/view/1866>.

⁹⁵ Alwishah, "Avicenna on Animal SelfAwareness, Cognition and Identity."

⁹⁶ Marilyn Booth, "Zaynab Fawwāz's Feminist Locutions," *Journal of Arabic Literature* 52, no. 1–2 (2021): 37–67.

lie in your life.⁹⁷ Always prostrate to the creator, approach yourself through prayer, one of which is to make the brain healthier and better.⁹⁸ According to doctors, the state of the brain in the prostration position in prayer is described as stimulating the muscles to develop well.⁹⁹ One of them is useful for pregnant women to prevent breach conditions in babies, in childbirth. And it is also beneficial for restoring and maintaining the abdominal organs in place.¹⁰⁰ When prostrating, the believer is in a position of total surrender that there is no power but to expect the pleasure of His Lord. In theory, the perspective of Islam is to humble oneself to Allah SWT. Related to medical health causes blood vessels in the brain to receive a lot of oxygen content because the heart is above the head which allows blood to flow optimally into the brain.¹⁰¹

Implications of Optimizing the Potential of *Nāṣiyah* in Islamic Education

Education has a very broad term, which includes all the guidance and direction that makes a person a better direction.¹⁰² In general, linguists have different opinions about the definition of education.¹⁰³ Education is understood as educating or guiding deliberately with awareness by an educator towards students both physically and spiritually even to the formation of good morals.¹⁰⁴ Leading to the discourse of Islamic

⁹⁷ Mohammad Jailani, Suyadi, and Dedi Djubaedi, "Menelusuri Jejak Otak Dan 'Aql Dalam Al-Qur'an Perspektif Neurosains Dan Pendidikan Islam Di Era Pandemi COVID-19," *Tadris: Jurnal Pendidikan Islam* 16, no. 1 (2021): 1-19.

⁹⁸ Mahyudin Ritonga et al., "Arabic Language Learning Reconstruction as a Response to Strengthen Al-Islam Studies at Higher Education," *International Journal of Evaluation and Research in Education* 10, no. 1 (2021): 355-363.

⁹⁹ Virginia Bonomo Ed. D., "Brain-Based Learning Theory," *Journal of Education and Human Development* 6, no. 2 (2017): 27-43.

¹⁰⁰ Mohd Azrul Azlen Abd Hamid, Muhammad Sabri Sahrir, and Khairil Azwar Razali, "A Preference Analysis and Justification of Arabic Written Corrective Feedback among Instructors and Undergraduates," *Indonesian Journal of Applied Linguistics* 10, no. 3 (2021): 697-706.

¹⁰¹ Nedaa Zayed and Anwar Hussein Abdel Razeq, "Palestinian High School Students' Attitudes towards Studying English Language and Culture," *International Journal of Arabic-English Studies* 21, no. 2 (2021): 7-28.

¹⁰² Abdul Muhid et al., "Big Five Personality Test for State Islamic Senior High School Students in Indonesia," *International Journal of Instruction* 14, no. 2 (2021): 483-500.

¹⁰³ Halim Rane, Adis Duderija, and Jessica Mamone, "Islamic Studies in Australia's Higher Education Sector," *Australian Journal of Islamic Studies* 6, no. 1 (2021): 1-31, <https://ajis.com.au/index.php/ajis/article/view/337>.

¹⁰⁴ Azlisham Abdul Aziz et al., "The Development Of An Analysis Of Systematic Literature Review OIslamic Oriented Instruments," *Journal of Contemporary Issues in Business and Government* 27, no. 1 (2021): 3222-3233.

education must be developed with good behavior so that others can imitate it. Therefore, Islamic education becomes the center of other scientific discourses, because it contains the substance of the relationship in the world and the hereafter.¹⁰⁵ How to get the goods, and how to do good in daily life activities. In the perspective of Islamic education, goodness is carrying out everything that is commanded by Allah SWT and staying away from everything that is prohibited by Him.¹⁰⁶

According to Suyadi, in the difference between the crown and the heart in the discourse of Islamic education, until now there has not been a theoretical and empirical study, one of the approaches used is the discipline of neuroscience.¹⁰⁷ For example, students who can work on exact questions are not necessarily able to work on social knowledge questions.¹⁰⁸ On the other hand, children who can and have high grades in mathematics are not necessarily capable and masters in the world of music.¹⁰⁹

Suyadi also gave examples of explanations in Islamic education, forbidding children to over-praise their minds.¹¹⁰ In Islam, the most important thing is the honor of the heart (*akhlakul karimah*).¹¹¹ Islamic education is more advocating with a heart approach in true character so that children or students can reflect in real life in the surrounding environment.¹¹²

It can be explained based on the description above, meaning that the crown is very necessary to be used as the main basis in the framework of thinking because it is in harmony with a conscience.¹¹³ Thoughts and feelings will produce character and self-

¹⁰⁵ Yusmaliana Desfa et al., "Creative Imagination Base on Neuroscience : A Development and Validation of Teacher ' s Module in Covid-19 Affected Schools," *Universal Journal of Educational Research* 8, no. 1 (2020): 5849–5858.

¹⁰⁶ Elihami, "E-Learning in Islamic Education and Pacasila on During Covid-19 Pandemic."

¹⁰⁷ Suyadi et al., "Constitutional Piety : The Integration of Anti-Corruption Education into Islamic Religious Learning Based on Neuroscience," *Jurnal Pendidikan Agama Islam* 6, no. 1 (2019): 38–46, <http://ejournal.uin-malang.ac.id/index.php/jpai>.

¹⁰⁸ (Salihin et al., 2021)

¹⁰⁹ Fauzi Muhammad Ilfan, "Pemanfaatan Neurosains Dalam Desain Pengembangan Kurikulum Bahasa Arab," *Arabiyatuna : Jurnal Bahasa Arab* 4, no. 1 (2020): 1.

¹¹⁰ Suyadi, "Pendidikan Islam Dan Neurosains," in *Asosiasi Program Pascasarjana Perguruan Tinggi MUhammadiyah 'Aisyiyah (APPPTMA)* (Sulawesi Selatan: KNAPPPTMA KE-6, 2017), 8–9.

¹¹¹ M. Abdul Fattah Santoso and Yayah Khisbiyah, "Islam-Based Peace Education: Values, Program, Reflection and Implication," *Indonesian Journal of Islam and Muslim Societies* 11, no. 1 (2021): 185–207.

¹¹² Muhammad Wildan, "The Persecution of Rohingya Muslims and the Path to Democratization in Myanmar," *Studi Islamika Indonesian Journal for Islamic Studies* 28, no. 1 (2021): 1–18.

¹¹³ Arif Budiman, Edi Safri, and Novizal Wendry, "Studi Kritik Hadis Perspektif Jonathan A.C. Brown (Analisis Terhadap Three Tiered Method)," *Substantia: Jurnal Ilmu-Ilmu Ushuluddin* 22, no. 1 (2020): 1.

control, as did the Prophet Muhammad. To perfect human morality.¹¹⁴ In human life, of course, character education guidance has been created. One of the functions of Islamic education is to lead to religious norms.¹¹⁵ Located in the strength of his mind, always stepping and making decisions according to the orders of his mind, Islamic education aims to educate positive human minds, namely promoting a healthy rational mind, prioritizing good ethical norms over lust.¹¹⁶ In this case, it is very implicated to be able to control oneself and to be consistent in walking on the straight path, because if a person is controlled by his lust, then the light of honesty and truth is blocked as a blessing from His Lord.¹¹⁷

To actualize common sense in influencing the meaning of *nāṣiyah*, a good process is needed with Islamic guidance and education.¹¹⁸ Because Islamic education is more focused on providing the concept of reason education so that a perfect human being is *kaffah* which has implications for his life, namely the faithful servant.¹¹⁹ According to As-Syaibani, it is stated that human nature is influenced by three elements including physical, reason, and spiritual, which are the most important elements for human life in the world, in achieving awareness of a healthy mind.¹²⁰

As-Syaibani mentioned in detail Islamic education cannot be separated from the development of physical education.¹²¹ This means that the physical potential that exists

¹¹⁴ Yogi Febriandi and Yaser Amri, "Stuck In Sharia Space The Experiences of Christian Students in Langsa, Aceh," *Al-Jami'ah* 59, no. 1 (2021): 33–56.

¹¹⁵ Adeyemi Balogun, "Religion and Prejudice: Perspectives on the Tablighi Jama'at in Ede, Southwest Nigeria," *International Journal Islamic Studies* 1, no. 2 (2021): 1–15.

¹¹⁶ M Husnaini, Ahmad Syauqi Fuady, and Iرنie Victorynie, "Al-Islam Dan Kemuhammadiyah: How to Teach the Non-Muslim Students at Muhammadiyah Education University of Sorong," *International Journal of Asian Education (IJAE)* 2, no. 2 (2021): 224–234.

¹¹⁷ Syamsul Anwar, "Developing a Philosophy of Scientific Advancement in Muhammadiyah Higher Education Institutions Based on Al-Islam and Kemuhammadiyah (AIK) Principles," *Afkaruna: Indonesian Interdisciplinary Journal of Islamic Studies* 17, no. 1 (2021).

¹¹⁸ Wildana Wargadinata et al., "Arabic Creative and Participative Learning: In Search of a New Way of Language Learning by 'El Jidal Reborn' Youth Community in Malang," *International Journal of Advanced Science and Technology* Vol. 2, no. No. 8s (2020): 4319–4332.

¹¹⁹ Amal Malkawi, "The Understanding of Graduate Students at Yarmouk University of the Principles of Brain-Based Learning and Their Attitudes towards Them," *International Journal of Psychosocial Rehabilitation* 24, no. 03 (2020): 1033–1043.

¹²⁰ Gülten Koşar and Hasan Bedir, "European Journal of Education Studies IMPROVING KNOWLEDGE RETENTION VIA ESTABLISHING BRAIN-BASED LEARNING ENVIRONMENT," *European Journal of Education Studies* 4, no. 9 (2018): 1–11, www.oapub.org/edu.

¹²¹ (S. Chakravarty, MA Fonseca, S. Ghosh, P. Kumar, 2019)

in humans is not useful if the development of the mind does not function.¹²² As well as the balance of the three elements between the body, mind, and spirit, namely the body is healthy and strong, the mind is healthy and intelligent, and the heart is always attached to Allah with full of faith.¹²³

As realized in the Qur'an Surah Al-Alaq verses 15-16 the meaning of *nāṣiyah* is closely related to good character and pure honesty. Implications for Islamic education, very influential on learning Islamic religious education.¹²⁴ Knowing the achievements and abilities of students is very helpful for the development of thinking and learning achievement. The knowledgeability possessed is still under the supervision of educators.¹²⁵ With that, there are principles related to the learning program, including holistic principles, principles of integrity, and principles of affective, cognitive, and psychometric development.¹²⁶

The dynamics of reason in the meaning of *nāṣiyah* there are two reasons: first, because reason prevents negative actions, secondly as a distinguishing function, that is what distinguishes humans from other God's creatures.¹²⁷ In this case, it is very close to the meaning of reason itself which is defined as being bound or bound, in line with the understanding of hadith science, it is found in the statement of Abu Bakr's hadith about the chapter ("Arab people who do not want to distribute their *zakat fitrah*").¹²⁸ The content of the hadith is: Abu Bakr said if they refused to pay *zakat fitrah* to me a rope (*iqalan*) which they previously paid to the Messenger of Allah, I will fight them.¹²⁹ In this case, the word '*iqal*' which means ties of thread or rope, is also corroborated by the hadith of the Prophet 'Adi Ibn Hatim, where he said: "When the verse was revealed (Surat Al-Baqarah: 187), this explanation is easy to understand, meaning that the mind

¹²² (Azis Abdullah, Siswanto Masruri, 2019)

¹²³ Munir Munir and Riola Haya Nur, "The Development of English Learning Model Based on Contextual Teaching and Learning (Ctl) in Junior High Schools," *International Journal of Language Education* 2, no. 1 (2018): 31–39.

¹²⁴ Hendro Widodo, "The Role of School Culture in Holistic Education Development in Muhammadiyah Elementary School Sleman Yogyakarta," *Dinamika Ilmu* 19, no. 2 (2019): 265–285.

¹²⁵ Mika Vanhala and Shay S. Tzafir, "Organisational Trust and Performance in Different Contexts," *Knowledge and Process Management* 28, no. 4 (2021): 331–344.

¹²⁶ (Ruri Afria Nursa, 2020)

¹²⁷ (von Grebmer zu Wolfshurn et al., 2021)

¹²⁸ Antonio Crupi et al., "The Digital Transformation of SMEs – a New Knowledge Broker Called the Digital Innovation Hub," *Journal of Knowledge Management* 24, no. 6 (2020): 1263–1288.

¹²⁹ (Fa'atin, 2017)

is bound. on the concept of direction in Islamic education. Indeed, Allah SWT is perfect in creating His creatures with the best of Him.¹³⁰

The meaning of *nāṣiyah* in the concept of Islamic education develops the basic characteristics (*fitrah*) of a child who from the beginning of his creation was born so that he grows and develops properly.¹³¹ Improvement and good thinking as well as the encouragement of regular practice to think right, and be able to maintain, condition from various influences so that they can make the right and right decisions.¹³²

The development of reason in the concept of Tafsir mentioned additional development, many and high possessed by humans, development in humans is a natural and continuous process that is given by Allah to all living things.¹³³ Parents and educators must have a positive impact on children, and that students are more concerned than farmers about their crops and that plants are affected by where they grow.¹³⁴ Even children or students are greatly influenced by the environment and guidance from their educators,¹³⁵ as well as the habits of the family and the surrounding environment.¹³⁶ Humans who can minimize good relationships between brain synchronization, attitudes, and behavior are classified as good people.¹³⁷ In all his actions, he will be able to exercise self-control through the function of the crown of which part of his job is to control himself from emotions, as well as decision-makers

¹³⁰ Joesana Tjahjani and Damar Jinanto, "Teaching French Language Through Films: The Cultural Contents in French and Francophone Films," *Indonesian Journal of Applied Linguistics* 11, no. 2 (2021): 382–391.

¹³¹ Abdul Hakim Wahid, "Peta Perdebatan Akademik Dalam Kajian Hadis," *Refleksi* 18, no. 1 (2018): 117–138.

¹³² Betty Maulirosa Bustam and Rika Astari, "Meaning Differences Between Two Quran Translations in Activism Era in Indonesia (Ideology in Translation Analysis)," *Analisa: Journal of Social Science and Religion* 3, no. 1 (2018): 131–147.

¹³³ Anna Winlund, "Emergent Literacy Instruction: 'Continua of Biliteracy' among Newly Immigrated Adolescents," *Language and Education* 34, no. 3 (2020): 249–266, <https://doi.org/10.1080/09500782.2019.1701006>.

¹³⁴ Jimmy H.M. van Rijt, Astrid Wijnands, and Peter Arno J.M. Coppen, "How Secondary School Students May Benefit from Linguistic Metaconcepts to Reason about L1 Grammatical Problems," *Language and Education* 34, no. 3 (2020): 231–248.

¹³⁵ Mahyudin Ritonga et al., "Arabic as Foreign Language Learning in Pandemic COVID-19 as Perceived by Students and Teachers," *Linguistics and Culture Review* 5, no. 1 (2021): 75–92, <https://lingcure.org/index.php/journal/article/view/726>.

¹³⁶ Uril Baharuddin, Syuhadak, and Sutaman, "Model of Developing Oral Skills for Non-Arabic Learners at the University Level," *Dinamika Ilmu: Jurnal Pendidikan* 21, no. 1 (2021): 225–241.

¹³⁷ Boon et al., "Emotional Intelligence in Distance Learning : A Case Study of English as a Second Language via Distance Learning."

related to his interests in the world.¹³⁸ Islamic education will be able to anticipate the crown in every step that is prohibited by Allah SWT (a disgraceful act).¹³⁹ The role of Islamic education in the setting of educational institutions or social institutions is very important, especially for students and children.¹⁴⁰ Islamic education also teaches values that can be applied in human life so that these values can have a good influence, and can also keep away from disgraceful actions.¹⁴¹

Conclusion

Based on the results of research and discussion, it turns out that neuroscience in the 19th century was a very broad science and was already present in Islamic civilization along with the revelation of the Qur'an in the 7th century. In the decade of the Prophet Muhammad, it was very clear related to the discourse of Tafsir research, one of which identified from the context of the Qur'an Surah Al-Alaq verses 15-16 regarding the meaning of *nāṣiyah*. In this study, the focus is on the discourse of the study of the context of meaning (*nāṣiyah*), in the Tafsir Salman approach which is interpreted by the *mufassir* as (the crown). It has broad implications for the discussion of the crown, which greatly affects his brain. As a basis for thinking of the potential it has. Significantly the brain becomes healthy and runs as it should. There is also an influence on his mind, which will have an impact on his life. The concept of *nāṣiyah* as the neurobiological basis of the brain in the Qur'an will have implications for increasing reasons in the perspective of Islamic education. This is a new finding that needs to be developed in the disciplines of neuroscience and Islamic education.

As humans, we cannot escape from forgetting and making mistakes, because Allah SWT created humans in a weak state. Including this research, there are still many shortcomings. In connection with that, it is hoped that academics and scientists will develop in this research related to the research findings above. The influence of the

¹³⁸ Massimiliano Borroni and Vladimiro Boselli, "Hydraulics and Hydrology in a Passage of the Kitab Al-a?Ar Al-Baqiya by Al-Birun," *Arabic Sciences and Philosophy* 31, no. 2 (2021): 159–182.

¹³⁹ Farkhani, Baidhaway, and Kuswaya, "Islamophobia in Spain: Inheritance of Reconquista and Hate Political Rhetoric."

¹⁴⁰ Christine E. Laustsen et al., "Exploring Health Professionals' Experiences of Being Involved in a Research Project," *Knowledge Management Research and Practice* 19, no. 2 (2021): 230–238, <https://doi.org/10.1080/14778238.2020.1762253>.

¹⁴¹ Anis Humaidi Et al., "The Process of Establishing Islamic Education at Wali Barokah Islamic Boarding School in Kediri, Indonesia," *Psychology and Education Journal* 58, no. 2 (2021): 1827–1837.

benefits is very large, especially for humans as intelligent living beings, as an increase in the essence of piety to Allah SWT, in various aspects of life. The implications of his research can combine neuroscience, the Qur'an, and Islamic education in scientific development and education today. Neuroscience which is a derivative of neurobiology is comparable to the miracles of the Qur'an which are relevant to the development of Islamic education.

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