

Neuroscience and Hifdz Maqasid Sharia as an Innovation in the Development of Moral Education in Islam

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ABSTRACT

Moral and character education faces great challenges in today's modern society. Moral education for children is often hampered by their increasingly modern and complex environment. This research uses a qualitative approach with a library research method. The data used to explore, analyse, and interpret this research comes from primary data sources, namely books on neuroscience, education, hifdz al-'Aql, and secondary data from scientific journals, articles, documents, and relevant digital sources. The purpose of this research is to integrate neuroscience methods with hifdz al-'Aql in children's moral education with the aim of developing better character building strategies. The findings of this study show that the combination of neuroscience and the principle of hifdz al-'Aql can provide a comprehensive approach to moral education, by understanding that the moral learning process does not only depend on the delivery of values, but also on the development of children's brains and cognitive abilities. This research confirms, this interdisciplinary use has the potential to produce an educational framework that is more flexible and responsive to the challenges of the times, providing teachers with more efficient tools to prepare a generation that is more in line with its nature.

Keywords: Moral education, neuroscience, hifdz al-'Aql, character, morals.

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INTRODUCTION

Moral education is becoming increasingly important in this modern age because the phenomenon of moral degradation among students is very real. The negative influence of technology and changing social values are some of the reasons why many students have declined in moral standards and behaviour. The main purpose of moral education is to help children to develop as a whole. This includes not only improving academic intelligence, but also building good character. From childhood, values such as honesty, discipline, empathy and responsibility should be instilled in the family and society. With a strong ethical foundation, the next generation will hopefully become honest people and be able to make a positive contribution to their environment¹.

Various efforts and interdisciplinary approaches must be applied to realise noble moral education. The field of neuroscience offers teaching methods based on how the brain works in a scientific way to improve the overall quality of education, which is a promising innovation. Factors such as attention, motivation and the development of cognitive abilities that are important in the formation of children's character and behaviour can be studied through the neuroscience approach. According to research in this field, everyday learning experiences can significantly shape and influence these component². This provides an opportunity to create a better educational approach that incorporates moral education into educational programmes and daily practices, in the hope of producing a generation that is not only intellectually intelligent. (Martha, 2018). Neuroscience offers a new perspective that can change the way we understand learning as it emphasises how the human brain processes data and how learning occurs at a biological level³.

In addition, Islam also gives attention and emphasis to moral education with the theory of hifdz al-'Aql, which means protecting the mind. This offers an interesting and in-depth perspective in relation to moral education⁴. Hifdz al-'Aql comes from the principles of Islamic law that emphasise the importance of protecting the mind as one of the five maqasid al-syariah (objectives of sharia law), which is the main goal for human benefit. Hifdz al-'Aql underlines the important role of reason in exploring and understanding the world, making decisions, and maintaining moral balance, and emphasises the importance of avoiding actions that can damage a person's thinking ability and intellectual ability⁵.

The integration of these two fields is expected to produce a generation that not only has good academic performance, but also has good morals and strong morals and behaves in accordance with universal moral principles. This method requires cross-disciplinary research that combines a deep understanding of the principles of morality with a technical understanding of

¹ Tiara Ramadhani and others, 'The Role Of Character Education In Forming Ethical And Responsible Students', *IJGIE (International Journal of Graduate of Islamic Education)*, 5.2 (2024), pp. 110–24.

² M. B. Hammami, 'Utilizing Neuroscience Research to Enhance Learning Strategies and Optimize Curriculum Design', *International Journal of Advanced Research*, 11.09 (2023), pp. 797–811.

³ 문경호, 'Moral Educational Implications of Neuroscientific Research on Moral Decisionmaking', *Brain, Digital, & Learning*, 13.4 (2023), pp. 537–51.

⁴ Ichwan Kurnia Hidayat, 'Integrating Islamic Education Values: The Key to Character Education of the Young Generation Al-Hikam Perspective', *EDURELIGIA: Jurnal Pendidikan Agama Islam*, 8.1 (2024), pp. 90–101.

⁵ Abdul Aziz and others, 'SDG's and Maqasid Shariah Principles: Synergies for Global Prosperity', *Journal of Lifestyle and SDGs Review*, 4.2 (2024), pp. e01873–e01873.

how the brain works. It also requires the collaboration of experts from various fields, such as education, psychology, neuroscience and ethics. Therefore, it is possible to create innovative and comprehensive educational models that are able to respond to the challenges and demands of the times⁶.

This research opens a great opportunity to update the education curriculum in a broader direction and encourage educators, policy makers and the academic community to pay more attention to morality and ethics as an important component in children's intellectual development. This study will explore how these two methods can be combined to create an education system that prioritises moral education, character development as a whole and not just knowledge and cognitive abilities.⁷

Kurniawati et al, in a journal entitled 'Implementation of Neuroscience Learning in Stimulating Early Childhood Moral Development' concluded that education in early childhood is carried out through play activities, which are in line with the nature of children who like to play. Play allows children to acquire knowledge freely without feeling burdened or pressured. Neuroscience learning can fulfil children's needs if done in a way that pleases children because it is in accordance with the growth of their nerves and brains⁸.

Dahuri in a journal entitled 'Character Education as Brain Education from the perspective of Spiritual Neuroscience Studies' found that if a person uses his brain in a good and natural way of thinking, then he will be able to develop good morals and apply moral and spiritual values in his daily life. Thus, a person's faith and piety in God will increase and be more diligent and active in worship⁹.

Hisyam Syafii and Halim Purnomo mentioned in the journal 'Comparative Analysis of Behaviouristic and Social Constructivism Approaches in Moral Formation: An Islamic Cognitive Neuroscience Perspective' This study provides a better understanding of how social constructivism and behaviouristic approaches contribute to moral formation from the perspective of Islamic cognitive neuroscience.

While previous studies have discussed the roles of neuroscience or Islamic perspectives in moral education separately, this research specifically focuses on integrating the Islamic concept of hifdz al-'Aql with neuroscience-based approaches to develop a holistic educational framework that supports children's moral development both spiritually and biologically. Hifd al-'Aql emphasises the importance of wisdom and ethics in learning, and neuroscience provides scientific insights into the way the brain develops and functions, allowing teachers to create educational strategies that work. By combining these two perspectives, it is possible to better instil moral values through an understanding of attention, motivation and emotions, as well as important factors according to neuroscience that are in line with the value of hifd al-Aql.

⁶ Geoffrey S. Holtzman, 'Neuromoral Diversity: Individual, Gender, and Cultural Differences in the Ethical Brain', *Frontiers in Human Neuroscience*, 11 (2017), p. 501.

⁷ Misno Abdul and others, 'Development of Islamic Education (PAI) Curriculum Based on Anti-Corruption Fiqh', *International Journal of Psychosocial Rehabilitation*, 24.3 (2020), pp. 2434–46.

⁸ Hartin Kurniawati and others, 'Implementasi Pembelajaran Neurosains Dalam Menstimulasi Perkembangan Moral Anak Usia Dini', *AZKIA: Journal of Islamic Education in Asia*, 1.1 (2024), pp. 68–80.

⁹ Dahuri Dahuri, 'Pendidikan Karakter Sebagai Pendidikan Otak Perspektif Kajian Neurosains Spiritual', *Jurnal Ilmu Pendidikan Dan Sains Islam Interdisipliner*, 2023, pp. 76–85.

RESEARCH METHODOLOGY

The research method used in this study is the library research method, in which the author utilises written sources from various relevant and credible literatures. This approach aims to build a strong theoretical foundation, support research hypotheses, and identify how neuroscience and maqasid sharia can contribute to moral education innovation. This study reviewed a wide range of literature, including books and scholarly journals, that discussed the relationship between sharia principles, which emphasise the care of five basic principles: religion, soul, mind, offspring and property.

At the stage of starting the research, all the literature was collected. This included an understanding of neuroscience in a social and spiritual context as well as maqasid sharia applied in moral education. Next, the author conducted a critical analysis and synthesis of the selected literature. The author emphasises important results and complements the shortcomings of previous research. Therefore, this research not only provides an integrative conceptual theoretical framework, but also provides practical suggestions on how to enrich Islamic moral education with this innovative method. It is hoped that this research will serve as a foundation for further, more empirical research and make a valuable contribution to the improvement of the Islamic education system as a whole.

RESULTS AND DISCUSSION

Moral Education

Etymologically, morals come from the Arabic word ‘khalafa’, which means ‘to create or mould’. This indicates the process of forming human behaviour and character. Meanwhile, according to terminology, morals are a set of moral and ethical values that guide actions and social interactions. Morals include good behaviour towards oneself, others, and the environment. In education, morals are formed through examples, education, and experiences that help students learn to behave in accordance with the norms and principles of society¹⁰.

Moral Education is an activity to instil positive values, shape character, and help people act well in everyday life. It is hoped that through this education, students can internalise moral principles, which will become guidelines in their interactions with others and with their environment¹¹.

Moral education can also be interpreted as the process of teaching moral and ethical values to children so that they can distinguish what is good and what is bad, and so that they can behave in accordance with the values they espouse. Moral education plays an important role in character building. Children who receive moral education grow in terms of social awareness, a sense of solidarity, responsibility and the ability to interact with others. This helps them to become better people in their community and becomes a provision in their future life¹².

¹⁰ Afri Naldi and others, ‘Metode Membentuk Akhlak Mulia Dalam Pendidikan Islam’, *Jurnal Manajemen Dan Pendidikan Agama Islam*, 2.2 (2024), pp. 244–48.

¹¹ Dilafuza Y. Sandibaeva, ‘Moral Education in Learning Activities’, *The American Journal of Social Science and Education Innovations*, 5.12 (2023), pp. 16–23.

¹² Sahrudin Sahrudin and Ricoh Herlambang, ‘Signifikansi Pendidikan Karakter Dalam Dunia Pendidikan’,

Educating children about morals is not only teaching good deeds, but also teaching them to empathise, respect, trust, and uphold honesty. With a strong moral foundation, children will have a positive attitude when facing challenges in an increasingly complex world. Moral education can be done in many places, such as at home or at school. The family is the first place where religious and cultural values are instilled. At school, moral education can be incorporated into lessons in a way that encourages children to think critically about morality through socialisation activities and discussions.

Moral education should be taught in an integrated manner as it involves a dynamic interaction between the home and school environment as centres of value learning. Moral education relies heavily on the combination of theoretical education with practice in daily life. This requires the roles of various stakeholders, such as parents, teachers and the community¹³.

Neuroscience

Etymologically, neuroscience is the study of the nervous system, especially the study of neurons or nerve cells with a multidisciplinary approach¹⁴. In terminology, neuroscience is a field of science that specialises in the scientific study of the nervous system. Neuroscience is also referred to as the study of the brain and all functions of the spinal cord. It studies the biological underpinnings of human behaviour and the most important task of neuroscience is to explain human behaviour in terms of the activities that take place in the brain. Some evidence in recent research on neuroscience has found that there is an inseparable relationship between the human brain and its behaviour¹⁵.

Neuroscience is a branch of science that studies the nervous system, including the structure, function, development and mechanisms of the brain and its impact on human behaviour and cognition. In view of the context of children's moral education, neuroscience provides important insights into how neurological processes affect the formation of children's character and morality. Neuroscience is a branch of science that studies the nervous system, including the function of the brain in regulating human behaviour. In moral education, neuroscience provides a deep understanding of how the brain shapes moral values, decisions, and behaviours that reflect a person's morals¹⁶.

Wulang: Jurnal Pendidikan Guru Madrasah Ibtidaiyah, 2.2 (2024), pp. 22–28.

¹³ Cong, Li. (2024). Explanation of the Meaning and Exploration of the Path of Collaborative Parenting between Home, School and Society. *Journal of Educational Research and Policies*, 6(10):21-24. doi: 10.53469/jerp.2024.06(10).06

¹⁴ Taufiq Pasiak, 'Tuhan Dalam Otak Manusia: Mewujudkan Kesehatan Spiritual Berdasarkan Neurosains', *Bandung: Mizan*, 132 (2012), p. 24.

¹⁵ Fitriwati Syamsuddin, *Pembelajaran Berbasis Neurosains Blueprint Pelaksanaan Model Model Pembelajaran Hypnohappy* (Deepublish, 2022) <[https://books.google.com/books?hl=en&lr=&id=-V5OEQAQBAJ&oi=fnd&pg=PR4&dq=Syamsuddin,+Fitriwati+Pembelajaran+berbasis+Neurosains,+blueprint+Pelaksanaan+Model+Pembelajaran+Hypnohappy,+\(2022\),+Sleman+:+Deepublish,+&ots=Wb2hk5bBpP&sig=tZlIFZihFnoKzoliYwHf_M37e5A](https://books.google.com/books?hl=en&lr=&id=-V5OEQAQBAJ&oi=fnd&pg=PR4&dq=Syamsuddin,+Fitriwati+Pembelajaran+berbasis+Neurosains,+blueprint+Pelaksanaan+Model+Pembelajaran+Hypnohappy,+(2022),+Sleman+:+Deepublish,+&ots=Wb2hk5bBpP&sig=tZlIFZihFnoKzoliYwHf_M37e5A)>.

¹⁶ M. Goncalves, 'Neuroscience Focus on Brain and Impact on Behaviour and Cognitive Functions', *J Clinic Res Bioeth. S*, 3 (2020) <<https://m.23michael.com/open-access/neuroscience-focus-on-brain-and-impact-on-behaviour-and-cognitive-functions.pdf>>.

A very popular neuroscience theory is the triune brain theory proposed by Paul D. Maclean which originated from his hypothesis in the 1960s. As an American neuroscientist, he explained the evolution of the vertebrate brain in his 1990 book *The Triune Brain in Evolution*. Based on this triune brain theory, the human brain is divided into three parts, namely the reptilian complex, limbic system, and neo cortex. The three layers of the brain are intertwined in a larger organisation and interconnected in their tasks in a complex, but very important way. This theory states that the layers of the human brain consist of three main parts: the reptilian brain, the limbic system, and the neocortex, or learning brain¹⁷.

The neocortex is given by God to humans to make humans different from animals, because humans have the largest part of the neocortex. Animals such as reptiles do not have a neocortex in their brains¹⁸. The neocortex is the part of the brain responsible for complex cognitive functions. Information processing, analysis, and decision-making are its main tasks. The neocortex also helps with abstract thinking, long-term memory, language skills, and social functioning, allowing people to interact and understand the opinions of others. In addition to supporting learning and creativity, the structure of several layers of the neocortex is responsible for adaptive and innovative human behaviour. Therefore, the neocortex serves as a hub for information integration and control of complex behaviours¹⁹.

The next part of the brain is the limbic. The limbic is the part of the brain that receives information from the body. The limbic system is an important part of the brain responsible for memory, motivation, emotions and behaviour. It connects structures such as the hippocampus, amygdala, and thalamus under the cerebrum. The amygdala is responsible for emotional processing. There are two types of emotions that arise: positive emotions and negative emotions, such as reactions to fear and pleasure. While the hippocampus is responsible for long-term memory formation and spatial navigation. The limbic system is crucial for emotional experience and adaptive behaviour, which is important for human learning and social interaction. Meanwhile, the thalamus serves as a relay centre for sensory information to the cortex²⁰.

The last part of the brain is reptilian which is also present in the animal brain. It is this part of the brain that commands the horse's legs to move and gallop. Reptilian brain commands also tell tigers to pounce on their prey and drive other animals to compete for power. In the human brain, the reptilian brain can also make humans behave like animals, for example jumping and running, and can also make them angry like angry animals²¹.

As a result of neuroscience research, the neocortex is also known as the prefrontal cortex of the brain, which is responsible for what is learnt, such as knowledge, advice, and so on. This

¹⁷ Syamsuddin, *Pembelajaran Berbasis Neurosains Blueprint Pelaksanaan Model Model Pembelajaran Hypnohappy*.

¹⁸ Megawangi, Ratna, dkk, *Neuroscience For Kids : Pengendalian Emosi Anak*, Depok : Indonesia Heritage Foundation, tahun 2015,

¹⁹ Xiao-Jing Wang, 'Theory of the Multiregional Neocortex: Large-Scale Neural Dynamics and Distributed Cognition', *Annual Review of Neuroscience*, 45.1 (2022), pp. 533–60, doi:10.1146/annurev-neuro-110920-035434.

²⁰ Yu P. Torsunova and N. V. Afanasieva, 'Morphology and Functioning of Limbic System: Literature Review', *Perm Medical Journal*, 40.1 (2023), pp. 61–77.

²¹ Megawangi, Ratna, dkk, *Neuroscience For Kids : Pengendalian Emosi Anak*, Depok : Indonesia Heritage Foundation, tahun 2015,

prefrontal cortex is located at the front of the brain, behind the forehead of the head. Then there is the nervous system that connects the brain to the body. What is seen, heard, spoken, and felt will enter the brain and then become memory. The messages in the brain will enter the body and form a practice or behaviour²².

Neuroscience research shows that parts of the brain involved in emotion regulation, such as the prefrontal cortex, develop over time and are influenced by children's emotional and social experiences. This suggests that moral education, which includes moral values education, empathy training and positive interactions, can strengthen the neurological pathways that support good moral behaviour²³. Neuroscience has also found that consistent and loving parenting experiences are critical to determining a child's moral behaviour. When children receive guidance and attention that helps their brains grow, they are more likely to develop good morals, such as honesty, responsibility, and respect for others. Consequently, incorporating neuroscience into children's moral education can help an educational approach centred on brain development and constructive moral behaviour.

The prefrontal cortex, is the part of the brain responsible for decision-making, self-control, empathy, distinguishing between right and wrong, restraining impulses, and considering the consequences of an action. In other words, this area has a significant role in moral development.²⁴

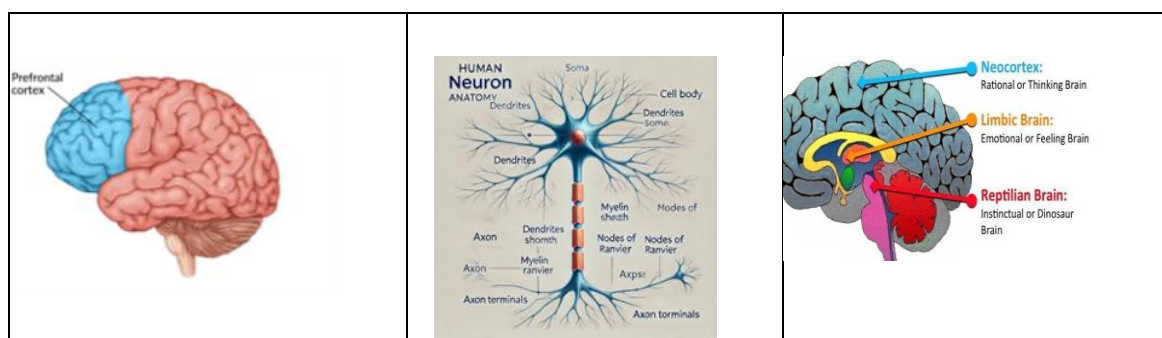


Figure 1. Prefrontal Cortex Figure 2. Human Neuron Figure 3. Human Brain

Another component structure within the brain is the neuron. The function of neurons is the main component that makes up the network in the prefrontal cortex, whose function depends on communication between neurons through synapses. Neurons in this area are connected to other parts of the brain, such as the sensory cortex (which receives information from the senses) and the limbic system (which regulates emotions)²⁵.

²² Aisah Dahlan, C. M. CHt, and Pustaka Elmadina, *Maukah Jadi OrangTua Bahagia?* (PT PUSTAKA ELMADINA BERKAH, 2022).

²³ Steph Nash, 'The Neuroscience of the Developing Child: Self-Regulation for Well-Being and a Sustainable Future: The Neuroscience of the Developing Child: Self-Regulation for Well-Being and a Sustainable Future, Mine Conkbayir, London and New York, Routledge, 2023, 296 Pp., £18.99 (via Routledge Website), ISBN: 9781032355764', *Educational Psychology in Practice*, 39.3 (2023), pp. 382–382, doi:10.1080/02667363.2023.2192109.

²⁴ Development of Prefrontal Cortex (pp. 410–417). (2022). Elsevier eBooks. <https://doi.org/10.1016/b978-0-12-819641-0.00071-2>

²⁵ Surbakti, K. P. (2023). Overview of Cellular Aspects of the Nervous System: A Narrative Literature Review. 1(1), 19–25. <https://doi.org/10.59345/sjn.v1i1.30>

Disruption or dysfunction in neurons in the prefrontal cortex will cause problems such as impulsivity, difficulty making decisions, attentional disorders, or personality disorders. In short, neurons are the main components that allow the prefrontal cortex to perform its job as the centre of behavioural control and decision-making. This is done through neuronal transmission and synaptic communication.²⁶

Neuroscience principles in children's moral education focus on understanding how the brain works and how the environment and experiences shape moral actions and attitudes. Among some of these principles are:

1. Neuroplasticity: A child's brain can change with experience and learning. Repeated and consistent moral teaching can help strengthen neuronal pathways that support positive behaviour²⁷.
2. Emotional Experiences: Experiences involving positive emotions, such as compassion and empathy, can help people learn morals and reinforce moral values²⁸.
3. Contextualised Learning: Providing education related to children's daily lives can strengthen the connection between moral theory and its practical application. Children understand and internalise these principles more easily if they have real-life experiences²⁹.
4. Attention and Focus: Children need to be in a stimulating learning environment that is not full of distractions to learn effectively. A stimulating learning environment can help children become more attentive and engaged in moral lessons³⁰.
5. Model or Exemplar: Children learn from others. Through observation, teachers and parents who demonstrate moral behaviour can help their children think and act positively³¹.
6. Consistency and Reinforcement: Praise and recognition can increase understanding of moral values. Repetition and positive reinforcement also help explain social norms and expectations.³²

²⁶ R. Le Bouc and others, 'Anatomy and Disorders of Frontal Lobe Functions: Fundamental Functions', *Ref. Module Neurosci. Biobehav. Psychol*, 10 (2022) <https://www.researchgate.net/profile/Emmanuelle-Volle/publication/348209987_Anatomy_and_Disorders_of_Frontal_Lobe_Functions_Fundamental_Functions/links/60f7d6322bf3553b2900267c/Anatomy-and-Disorders-of-Frontal-Lobe-Functions-Fundamental-Functions.pdf>.

²⁷ Dalley, J. W., & Leong, V. (2023). Neuroplasticity (pp. 366–376). Cambridge University Press. <https://doi.org/10.1017/9781911623137.054>

²⁸ Sará King, Selma Quist-Møller, and Lone Overby Fjorback, 'The Neuroscience of Ethics: Does Yoga, Meditation, and Mindfulness Training Make You a Better Person?', in *Arts and Mindfulness Education for Human Flourishing* (Routledge, 2022), pp. 238–57 <<https://api.taylorfrancis.com/content/chapters/edit/download?identifierName=doi&identifierValue=10.4324/978103158790-18&type=chapterpdf>>.

²⁹ P. Janardhana Kumar Reddy and K. Revathy, 'Contextual Learning', in *Digital Skill Development for Industry 4.0* (Auerbach Publications, 2024), pp. 83–104 <<https://www.taylorfrancis.com/chapters/edit/10.1201/9781003504894-8/contextual-learning-janardhana-kumar-reddy-revathy>>.

³⁰ Chandana Watagodakumbura, 'Principles of Curriculum Design and Construction Based on the Concepts of Educational Neuroscience.', *Journal of Education and Learning*, 6.3 (2017), pp. 54–69.

³¹ Fadkhulil Imad Haikal Huda, 'Pembentukan Karakter Religius Berbasis Neurosains: Konstruksi Upaya Guru Dalam Pembelajaran Pendidikan Agama Islam', *Jurnal Pendidikan Agama Islam Al-Thariqah*, 7.2 (2022), pp. 491–502.

³² Ramli Abdullah, 'Urgensi Disiplin Dalam Pembelajaran', *Lantanida Journal*, 3.1 (2017), pp. 18–33.

Indicators of neuroscience-based moral education can be seen in children's ability to develop social skills, empathy and self-awareness. Positive emotional experiences increase neuronal connectivity and support the understanding of moral values. In addition, character building is aided by an engaging and interactive environment where children learn about good behaviour through observation and positive reinforcement. Teaching methods that encourage students to think critically about their actions and their consequences are also very important. Overall, these indicators are in line with neuroscience principles that support healthy and adaptive brain development, which supports children's morals.³³

Good moral education can help build neural connections that support moral behaviour. For example, habituation to good behaviours, such as honesty, respect and empathy, can strengthen the neural networks associated with these traits. On the other hand, an unfavourable environment, such as experiences of violence or lack of role models, may hinder the development of brain areas that support self-control and empathy³⁴. Neuroscience also emphasises the importance of emotions in shaping morals. The limbic system, especially the amygdala, regulates emotional responses to moral states. Emotions such as guilt, shame, or pride encourage ethically appropriate behaviour³⁵.

An educator can use the understanding of brain mechanisms to create a more efficient method for teaching morals by practising turning negative emotions into positive ones. Choose information that is good for the brain, play cheerfully and happily, be calm, practice so that the neocortex can control the limbic and reptilian systems to work well together³⁶. For example, storytelling, moral discussions, and being a good example can be used to maximise the brain's potential to build strong moral behaviour. Therefore, neuroscience offers a solid scientific basis to support more efficient and sustainable moral education.

Hifdz al-'Aql

One of the main principles in the Islamic tradition is Maqashid al-Shariah, or the purpose of sharia. One of the main principles in the Islamic tradition is Maqasid al-Sharia, or the objectives of Islamic law. Among these objectives is hifdz al-'Aql, which refers to the protection and development of the human intellect. Hifdz means to preserve or safeguard, while al-'Aql refers to reason or rationality. Thus, hifdz al-'Aql involves efforts to protect the human mind from harm and promote its healthy growth and function^{37 38}

³³ Amaluddin Amaluddin, St Wardah Hanafie Das, and Muhammad Nasir S, 'Character Education Early Childhood: Brain-Based Teaching Approach', *International Journal of Pure and Applied Mathematics*, 119.18 (2018), pp. 1229–45.

³⁴ Hyemin Han, 'Considering the Purposes of Moral Education with Evidence in Neuroscience: Emphasis on Habituation of Virtues and Cultivation of Phronesis', *Ethical Theory and Moral Practice*, 27.1 (2024), pp. 111–28, doi:10.1007/s10677-023-10369-1.

³⁵ Abdul and others, 'Development of Islamic Education (PAI) Curriculum Based on Anti-Corruption Fiqh'.

³⁶ Megawangi, Ratna, dkk, *Neuroscience For Kids : Pengendalian Emosi Anak*, Depok : Indonesia Heritage Foundation, tahun 2015,

³⁷ Mohamed El-Tahir El-Mesawi, 'MAQĀṢID AL-SHARĪ'AH: MEANING, SCOPE AND RAMIFICATIONS', *Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilisation (ISTAC)*, 25.2 (2020), pp. 263–95.

³⁸ Karim Douglas Crow, 'The Intellect Islamic Thought: Mind and Heart', *KATHA-The Official Journal of the*

Beyond merely shielding the intellect from physical or moral threats, hifdz al-'Aql also includes cultivating intellectual virtues such as critical thinking, sound reasoning, and discernment between right and wrong. In more contemporary interpretations of maqasid, the concept has evolved to encompass the development of intellectual potential as a divine trust. This development is essential for fulfilling other higher objectives of the Sharia, including justice, wisdom, and human flourishing. Hence, hifdz al-'Aql is not only defensive in nature, but also constructive and developmental, emphasizing the role of knowledge, education, and reflection in a person's moral and spiritual growth.

In the context of children's moral education, hifdz al-'Aql aims to ensure that children are nurtured to think logically and wisely, while avoiding thoughts and actions that could harm their mental, ethical, or spiritual balance. This includes guarding against influences that are contrary to moral values and religious guidance. Education informed by hifdz al-'Aql helps instil values such as justice, wisdom, and ethical reasoning from an early age. It promotes an environment where intellectual development is aligned with moral integrity.³⁹

Abdul Majid Najjar in *Maqashid al-Syari'ah bi ab'ad Jadidah* divides maqashid shari'ah into several categories. Among the categories is maqashid shari'ah in maintaining human self, which includes: a) Maintaining human soul in the form of; maintaining human material dimension and maintaining human non-material dimension; b) Maintaining intellect.

He offers a classification in a different perspective, according to him maqashid sharia should be more comprehensive in viewing humans. Human welfare includes, among others; the values he adheres to, human physical and psychological, human existence in the middle of the social system, as well as the existence of property and the environment. Reactualization of maintaining Human Psychic includes honor (hifz al-'Irdh), reason (hifz al-'aql) develops into the right to education, intellectual property rights and so on, the right to life (hifz al-nafs), maintaining the development of art.

In this light, preserving the mind is not merely about avoiding intoxicants or harmful content, but also about creating a learning environment that stimulates curiosity, encourages creativity, and is grounded in values that support human dignity and ethical responsibility. Islam places great emphasis on the intellect as a means of understanding divine guidance, making hifdz al-'Aql a cornerstone of a value-based and transformative education.

Islam's Efforts to Safeguard the Intellect

1. Prohibiting Things that Damage the Mind

Alcohol, drugs, and other harmful substances are examples of things that are prohibited in Islam because they will damage the mind, eliminate the ability to think logically and contradict the principle of hifdz al-'aql. This is in accordance with the words of Allah in Surah al-Ma'idah verse 90.

Centre for Civilisational Dialogue, 2.1 (2006), pp. 1–22.

³⁹ Wasilah Wasilah, Faisal Faisal, and Aida Imtihana, 'Pentingnya Pendidikan Karakter Dalam Islam: Menanamkan Nilai-Nilai Keislaman Pada Anak-Anak Zaman Now', *Ihsanika: Jurnal Pendidikan Agama Islam*, 1.4 (2023), pp. 160–69.

يَا أَيُّهَا الَّذِينَ آمَنُوا إِنَّمَا الْخَمْرُ وَالْمَيْسِرُ وَالْأَنْصَابُ وَالْأَزْلَامُ رَجْسٌ مِّنْ عَمَلِ
الشَّيْطَانِ فَاجْتَنِبُوهُ لَعَلَّكُمْ تُفْلِحُونَ

O you who have believed, drinking alcohol, gambling, (sacrificing to) idols, and casting lots with arrows are abominable (and) among the deeds of the devil. So, avoid them so that you may be fortunate. (QS. Al-Mā'idah [5]:90)

Al-Qurthubi explains in his tafsir that there is no thing forbidden by Allah that is greater than khomar. (al-Qurthubi, 1996) As-samarqandi in his tafsir quoted a narration from Umar bin Khattab regarding the revelation of this verse about alcohol. Umar prayed 'O Allah, show us your opinion about alcohol, because it corrupts and consumes wealth and can eliminate the mind.'

2. Making Education and Knowledge Compulsory.

Islam strongly encourages its followers to learn in order to preserve their intellect. In a hadith, the Prophet said that 'Every Muslim is obliged to seek knowledge.' (HR. Ibn Majah). Education and knowledge not only improve human intelligence, but also protect people from ignorance that can harm society and degrade humanity. On the contrary, those who are willing to learn and continue to increase their knowledge, Allah will raise their status in this world. Allah says:

يَرْفَعُ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ

Allah will certainly raise those who believe among you and those who are given knowledge several degrees. Allah is meticulous in what you do. (QS. Al-Mujādalah [58]:11)

Wahbah Zuhaily explains this verse that Allah raises the degree of scholars (people of knowledge) to a high level in this world and in the hereafter because they combine knowledge and charity.

3. Maintain Mental Health.

The Prophet taught the importance of happiness, peace and self-control to maintain mental health. Islam also encourages its followers to maintain mental health as part of hifdz al-'aql. For example, patience, gratitude, praying, and dhikr can help maintain mental health. Allah says:

إِنَّ الَّذِينَ اتَّقَوْا إِذَا مَسَّهُمْ طَائِفٌ مِّنَ الشَّيْطَانِ تَذَكَّرُوا فَإِذَا هُمْ مُبْصِرُونَ

Verily, those who are pious, when they have evil thoughts (of sin) from the devil, they immediately remember (Allah). So, immediately they see (their faults). (QS. Al-A'rāf [7]:201)

Maintaining a healthy soul from the temptation of the devil is similar to maintaining a healthy body and a strong soul, which requires continuous care to keep it clean and healthy, requiring constant murāqabah, remembering Allah in all circumstances. Thus the devil does not get a chance to disturb himself. (Tafsir kemenag, 2015)

Islam is here to validate that the human brain and mind are so important because the health of the brain will function to contemplate all of Allah's creations and think about everything that happens in this universe including phenomena that exist in the heavens and on earth:

الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمَوَاتِ
وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ

(Those who remember Allah while standing, sitting, or lying down, and think about the creation of the heavens and the earth (saying), 'O our Lord, You have not created all this in vain. Glory be to You. Protect us from the punishment of hell. (QS. Āli 'Imrān [3]:191)

Hamka explains this verse in his tafsir that there are two things that cannot be separated, namely zikir and fikir. When everything is thought about, memory appears, and when the memory (mind) is used, there is an awareness of the weakness of the self before the creator. From that awareness comes the remembrance of Allah swt.

This verse contains a deep message about how important it is to think about and consider what Allah has created. This finding is in line with research in neuroscience which shows that thinking critically and considering what Allah created helps develop morals and emotions.

Neuroscience and hifdz al-'Aql in Children's Moral Education

Education plays an important role in shaping the intelligence, morality, and morals of individuals in the development of their potential. A holistic and effective approach to educating children can be made by combining morals-based education with the discipline of neuroscience as well as the principle of hifdz al-'Aql. The purpose of this article is to learn more about the relationship between children's moral education, neuroscience principles, and hifdz al-'Aql, and how this impacts a quality education system.

Children's moral education focuses on shaping children's attitudes, behaviour and moral understanding from an early age. The main goal is to increase moral awareness and the ability to make decisions based on ethical principles. Moral education in Islam demands values such as honesty, generosity and responsibility. Role modelling and providing good moral examples in life to children is important for moral education⁴⁰. Education should involve various aspects of the child's environment, such as family, school and community. Parents, teachers and community leaders can help children instil moral values in themselves.⁴¹

Education should encourage children to question, speak up and thoroughly analyse

⁴⁰ Miftahul Jannah Akmal and others, 'Membangun Potensi Melalui Pendidikan Anak: Perspektif Ibnu Sina Dalam Islam', *Al-Hikmah: Jurnal Agama Dan Ilmu Pengetahuan*, 21.2 (2024), pp. 250–63.

⁴¹ Binti Maunah, 'The Contribution of Family and Community Education in Realizing the Goals of School Education', *American Journal of Education and Learning*, 4.2 (2019), pp. 292–301.

information while maintaining moral standards in line with Islamic moral values. By providing children with these abilities, they can grow into wise and knowledgeable people capable of navigating the complex modern world.

Neuroscience is a field that studies in depth how the brain functions and processes, learns and remembers data. It has changed the way we understand learning and offers many new approaches to education. Education based on neuroscience emphasises neuroplasticity, which is the brain's ability to adapt and change according to what it learns and experiences. Similar to the concept of positive reinforcement in psychology, neuroscience-based education can be used to build and maintain good habits in children through guided practice and experience. By reinforcing learning about ethics and moral actions in real-world contexts, this understanding can be applied in moral education. Thus, these values will become part of the child's thought structure.

Using neuroscience, teachers can create a learning process that balances cognitive challenge and emotional support. They can adjust the pace, techniques and teaching strategies according to students' cognitive abilities. This helps maintain students' focus and drive to learn, ensuring learning is sustainable and optimised.

One way to integrate these three ideas into a child's education is to use an interdisciplinary approach. This approach combines contemporary moral, spiritual and scientific elements to provide a broader perspective. Some implementation strategies are as follows:

1. Holistic Curriculum: This curriculum combines Islamic morals with neuroscience topics to support cognitive learning and character building. The inclusion of moral treasures into the curriculum ensures that each subject not only focuses on academic material, but also incorporates moral and ethical principles.⁴²
2. Interactive Learning Methods: Participatory methods that actively involve children in learning, such as role plays, group discussions, and case studies, can enhance children's neurological development, nurture their minds, and encourage them to explore more deeply.⁴³
3. Supportive Learning Environment: Learning environments should be created to support children in their moral and intellectual development, support the development of their social and emotional skills, and avoid things that can interfere with brain function and learning.⁴⁴
4. Innovative Approach: Game-based learning and artificial intelligence technology can stimulate children's five senses. This can make learning more interesting and in line with neuroscience learning principles.⁴⁵

This study contributes to the ongoing academic discourse by presenting a novel interdisciplinary perspective that integrates Islamic moral education, neuroscience, and the

⁴² Sukatin Sukatin and others, 'Pendidikan Anak Dalam Islam', *Multiverse: Open Multidisciplinary Journal*, 2.3 (2023), pp. 408–15.

⁴³ Tetiana Sharova, Halyna Kolomoiets, and Tetiana Malechko, 'The Use of Interactive Teaching Methods in Educational Institutions', *Problems of Education*, no. 2 (101) (2024), pp. 221–43.

⁴⁴ Nagizade, P. (2024). Strategies for creating a positive supportive environment at school. *Deleted Journal*, 91(1), 251–254. [https://doi.org/10.69682/azrt.2024.91\(1\).251-254](https://doi.org/10.69682/azrt.2024.91(1).251-254)

⁴⁵ Nurgaziev, Y., & Abdykadyrov, A. (2023). Application of effective methods in the educational process based on innovative, interactive, and game technologies. *World Journal on Educational Technology*. <https://doi.org/10.18844/wjet.v15i4.8820>

principle of hifdz al-'Aql. While previous studies have individually explored moral education⁴⁶⁴⁷, neuroscience-based learning and curriculum strategies⁴⁸⁴⁹ this research bridges these domains under the Islamic conceptual framework of maqasid al-sharia. It affirms that hifdz al-'Aql is not only a religious imperative but also a cognitive and educational necessity in shaping children's moral reasoning. The findings reinforce and expand existing literature by showing how neuroscientific insights can be harmonised with Islamic ethical teachings to develop morally grounded, intellectually capable learners in a contemporary educational context.

CONCLUSION

This study found that the integration of neuroscience with hifdz al-'Aql in maqasid sharia can give birth to inventive and successful methods for developing moral education in Islam. The main findings show that a deep understanding of how the brain functions, such as cognitive and emotional development, can help in creating a curriculum that not only emphasises memorisation and text knowledge, but strengthens students' morals and character in accordance with the principles of sharia. Using the maqasid principles of sharia, particularly hifd al-'Aql, the curriculum can be enriched with brain-based learning methods that promote an overall deep spiritual understanding. In particular, hifdz al-'aql, or the safeguarding of the intellect, helps students develop critical and reflective thinking skills.

This research is of great importance to the world of Islamic education, especially as it provides a theoretical and practical basis for building educational policies that retain the basic values of Islam while keeping up with the advances of modern science. Neuroscientific insights can be incorporated into the education system to maintain and even improve moral pedagogy, ensuring that students' academic and spiritual aspects are balanced. However, this study also has some limitations. One of them is that this research was unable to conduct a direct empirical study testing this method in a real educational context. In addition, the incorporation of maqasid sharia principles with modern pedagogical approaches may face cultural and institutional challenges that require careful adaptation to the local context. It is strongly recommended that this creative integration can be achieved through ongoing research and policy development in Islamic education.

REFERENCE

- Abdul, Misno, and others, 'Development of Islamic Education (PAI) Curriculum Based on Anti-Corruption Fiqh', *International Journal of Psychosocial Rehabilitation*, 24.3 (2020), pp. 2434–46
- Abdullah, Ramli, 'Urgensi Disiplin Dalam Pembelajaran', *Lantanida Journal*, 3.1 (2017), pp. 18–33
- Akmal, Miftahul Jannah, and others, 'Membangun Potensi Melalui Pendidikan Anak: Perspektif Ibnu Sina Dalam Islam', *Al-Hikmah: Jurnal Agama Dan Ilmu Pengetahuan*, 21.2 (2024), pp. 250–63

⁴⁶ Akmal and others, 'Membangun Potensi Melalui Pendidikan Anak'.

⁴⁷ Maunah, 'The Contribution of Family and Community Education in Realizing the Goals of School Education'.

⁴⁸ Sukatin and others, 'Pendidikan Anak Dalam Islam'.

⁴⁹ Sharova, Kolomojets, and Malechko, 'The Use of Interactive Teaching Methods in Educational Institutions'.

- Amaluddin, Amaluddin, St Wardah Hanafie Das, and Muhammad Nasir S, 'Character Education Early Childhood: Brain-Based Teaching Approach', *International Journal of Pure and Applied Mathematics*, 119.18 (2018), pp. 1229–45
- Aziz, Abdul, and others, 'SDG's and Maqasid Shariah Principles: Synergies for Global Prosperity', *Journal of Lifestyle and SDGs Review*, 4.2 (2024), pp. e01873–e01873
- Crow, Karim Douglas, 'The Intellect Islamic Thought: Mind and Heart', *KATHA-The Official Journal of the Centre for Civilisational Dialogue*, 2.1 (2006), pp. 1–22
- Dahlan, Aisah, C. M. CHt, and Pustaka Elmadina, *Maukah Jadi OrangTua Bahagia?* (PT PUSTAKA ELMADINA BERKAH, 2022)
- Dahuri, Dahuri, 'Pendidikan Karakter Sebagai Pendidikan Otak Perspektif Kajian Neurosains Spiritual', *Jurnal Ilmu Pendidikan Dan Sains Islam Interdisipliner*, 2023, pp. 76–85
- El-Mesawi, Mohamed El-Tahir, 'MAQĀSID AL-SHARĪ'AH: MEANING, SCOPE AND RAMIFICATIONS', *Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilisation (ISTAC)*, 25.2 (2020), pp. 263–95
- Goncalves, M., 'Neuroscience Focus on Brain and Impact on Behaviour and Cognitive Functions', *J Clinic Res Bioeth. S*, 3 (2020) <<https://m.23michael.com/open-access/neuroscience-focus-on-brain-and-impact-on-behaviour-and-cognitive-functions.pdf>>
- Hammami, M. B., 'Utilizing Neuroscience Research to Enhance Learning Strategies and Optimize Curriculum Design', *International Journal of Advanced Research*, 11.09 (2023), pp. 797–811
- Han, Hyemin, 'Considering the Purposes of Moral Education with Evidence in Neuroscience: Emphasis on Habituation of Virtues and Cultivation of Phronesis', *Ethical Theory and Moral Practice*, 27.1 (2024), pp. 111–28, doi:10.1007/s10677-023-10369-1
- Hidayat, Ichwan Kurnia, 'Integrating Islamic Education Values: The Key to Character Education of the Young Generation Al-Hikam Perspective', *EDURELIGIA: Jurnal Pendidikan Agama Islam*, 8.1 (2024), pp. 90–101
- Holtzman, Geoffrey S., 'Neuromoral Diversity: Individual, Gender, and Cultural Differences in the Ethical Brain', *Frontiers in Human Neuroscience*, 11 (2017), p. 501
- Huda, Fadkhulil Imad Haikal, 'Pembentukan Karakter Religius Berbasis Neurosains: Konstruksi Upaya Guru Dalam Pembelajaran Pendidikan Agama Islam', *Jurnal Pendidikan Agama Islam Al-Thariqah*, 7.2 (2022), pp. 491–502
- King, Sará, Selma Quist-Møller, and Lone Overby Fjorback, 'The Neuroscience of Ethics: Does Yoga, Meditation, and Mindfulness Training Make You a Better Person?', in *Arts and Mindfulness Education for Human Flourishing* (Routledge, 2022), pp. 238–57 <<https://api.taylorfrancis.com/content/chapters/edit/download?identifierName=doi&identifierValue=10.4324/9781003158790-18&type=chapterpdf>>
- Kurniawati, Hartin, and others, 'Implementasi Pembelajaran Neurosains Dalam Menstimulasi Perkembangan Moral Anak Usia Dini', *AZKIA: Journal of Islamic Education in Asia*, 1.1 (2024), pp. 68–80
- Le Bouc, R., and others, 'Anatomy and Disorders of Frontal Lobe Functions: Fundamental

- Functions', *Ref. Module Neurosci. Biobehav. Psychol*, 10 (2022) <https://www.researchgate.net/profile/Emmanuelle-Volle/publication/348209987_Anatomy_and_Disorders_of_Frontal_Lobe_Functions_Fundamental_Functions/links/60f7d6322bf3553b2900267c/Anatomy-and-Disorders-of-Frontal-Lobe-Functions-Fundamental-Functions.pdf>
- Maunah, Binti, 'The Contribution of Family and Community Education in Realizing the Goals of School Education', *American Journal of Education and Learning*, 4.2 (2019), pp. 292–301
- Naldi, Afri, and others, 'Metode Membentuk Akhlak Mulia Dalam Pendidikan Islam', *Jurnal Manajemen Dan Pendidikan Agama Islam*, 2.2 (2024), pp. 244–48
- Nash, Steph, 'The Neuroscience of the Developing Child: Self-Regulation for Well-Being and a Sustainable Future: The Neuroscience of the Developing Child: Self-Regulation for Well-Being and a Sustainable Future, Mine Conkbayir, London and New York, Routledge, 2023, 296 Pp., £18.99 (via Routledge Website), ISBN: 9781032355764', *Educational Psychology in Practice*, 39.3 (2023), pp. 382–382, doi:10.1080/02667363.2023.2192109
- Pasiak, Taufiq, 'Tuhan Dalam Otak Manusia: Mewujudkan Kesehatan Spiritual Berdasarkan Neurosains', *Bandung: Mizan*, 132 (2012), p. 24
- Ramadhani, Tiara, and others, 'The Role Of Character Education In Forming Ethical And Responsible Students', *IJGIE (International Journal of Graduate of Islamic Education)*, 5.2 (2024), pp. 110–24
- Reddy, P. Janardhana Kumar, and K. Revathy, 'Contextual Learning', in *Digital Skill Development for Industry 4.0* (Auerbach Publications, 2024), pp. 83–104 <<https://www.taylorfrancis.com/chapters/edit/10.1201/9781003504894-8/contextual-learning-janardhana-kumar-reddy-revathy>>
- Sahrudin, Sahrudin, and Ricoh Herlambang, 'Signifikansi Pendidikan Karakter Dalam Dunia Pendidikan', *Wulang: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 2.2 (2024), pp. 22–28
- Sandibaeva, Dilafruzha Y., 'Moral Education in Learning Activities', *The American Journal of Social Science and Education Innovations*, 5.12 (2023), pp. 16–23
- Sharova, Tetiana, Halyna Kolomoiets, and Tetiana Malechko, 'The Use of Interactive Teaching Methods in Educational Institutions', *Problems of Education*, no. 2 (101) (2024), pp. 221–43
- Sukatin, Sukatin, and others, 'Pendidikan Anak Dalam Islam', *Multiverse: Open Multidisciplinary Journal*, 2.3 (2023), pp. 408–15
- Syamsuddin, Fitriwati, *Pembelajaran Berbasis Neurosains Blueprint Pelaksanaan Model Model Pembelajaran Hypnohappy* (Deepublish, 2022) <[https://books.google.com/books?hl=en&lr=&id=-V5OEQAQAQBAJ&oi=fnd&pg=PR4&dq=Syamsuddin,+Fitriwati+Pembelajaran+berbasis+Neurosains,+blueprint+Pelaksanaan+Model+Pembelajaran+Hypnohappy,+\(2022\),+Si+eman++Deepublish,+&ots=Wb2hk5bBpP&sig=tZlIFZihFnoKzoliYwHf_M37e5A](https://books.google.com/books?hl=en&lr=&id=-V5OEQAQAQBAJ&oi=fnd&pg=PR4&dq=Syamsuddin,+Fitriwati+Pembelajaran+berbasis+Neurosains,+blueprint+Pelaksanaan+Model+Pembelajaran+Hypnohappy,+(2022),+Si+eman++Deepublish,+&ots=Wb2hk5bBpP&sig=tZlIFZihFnoKzoliYwHf_M37e5A)>
- Torsunova, Yu P., and N. V. Afanasieva, 'Morphology and Functioning of Limbic System:

- Literature Review', *Perm Medical Journal*, 40.1 (2023), pp. 61–77
- Wang, Xiao-Jing, 'Theory of the Multiregional Neocortex: Large-Scale Neural Dynamics and Distributed Cognition', *Annual Review of Neuroscience*, 45.1 (2022), pp. 533–60, doi:10.1146/annurev-neuro-110920-035434
- Wasilah, Wasilah, Faisal Faisal, and Aida Imtihana, 'Pentingnya Pendidikan Karakter Dalam Islam: Menanamkan Nilai-Nilai Keislaman Pada Anak-Anak Zaman Now', *Ihsanika: Jurnal Pendidikan Agama Islam*, 1.4 (2023), pp. 160–69
- Watagodakumbura, Chandana, 'Principles of Curriculum Design and Construction Based on the Concepts of Educational Neuroscience.', *Journal of Education and Learning*, 6.3 (2017), pp. 54–69
- 문경호, 'Moral Educational Implications of Neuroscientific Research on Moral Decisionmaking', *Brain, Digital, & Learning*, 13.4 (2023), pp. 537–51