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DEVELOPING A NEUROSAINS-BASED ARABIC CURRICULUM

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Abstract

The purpose of this article is to discuss the role of Neurosains in the modernization of the Arabic curriculum, including its strategic and practical reconstruction. One is the emergence of international integration, brain-based learning, and character development based on neuroscience or neuroscience approaches. The basic principle of this study is the correct brain functional statement as the foundation of Arabic curriculum development. This paper aims to demonstrate how the Arabic learning process can be integrated with neuroscience approaches by optimizing right and left brain functions. This type of research is a literature study with Content Analysis (Analysis content) in the form of descriptive analysis. The research method uses primary sources from previous articles, and books. The results showed that the application of neurosains can be implemented into the formulation of Arabic curriculum development with Circuit; 1) optimization of the right and left brain nervous system; and 2) optimization of the nervous system of the right and left brain. 2) incorporate the role of the brain into the Educational Foundation and the psychological aspects of cognitive (the substance of Arabic), psychomotor (mastery of Arabic skills), and affective (attitudes, values, and character) into Arabic learning design; and 3) link these three aspects into the nature of Arabic learning objectives, methods, strategies, and techniques. On that basis, neuroscience can be incorporated into modern-era Arabic learning curriculum development standards.

Keywords*: Curriculum Development, Neurosains, Arabic*

مستخلص البحث

الهدف من هذا المقال هو دراسة دور علم الأعصاب في تحديث مناهج اللغة العربية ، بما في ذلك إعادة البناء الاستراتيجي والعملي. واحد منهم هو ظهور

التكامل الدولي ، والتعلم القائم على الدماغ، وتطوير الشخصية على أساس علم الأعصاب أو مناهج علم الأعصاب. المبدأ الأساسي لهذا البحث هو وجود بيان وظيفي للدماغ الأيمن كأساس لتطوير منهج اللغة العربية. تهدف هذه الورقة إلى توضيح كيف يمكن دمج عملية تعلم اللغة العربية مع نهج علم الأعصاب من خلال تحسين وظيفة الدماغ الأيمن والأيسر. هذا النوع من البحث هو دراسة الأدب مع تحليل المحتوى (تحليل المحتوى) في شكل تحليل وصفي. يستخدم أسلوب البحث المصادر الأولية في شكل مقالات وكتب سابقة. تظهر نتائج الدراسة أن تطبيق علم الأعصاب يمكن تطبيقه في صياغة منهج اللغة العربية مع شركة Circuit.١) تحسين الجهاز العصبي الأيمن والأيسر للدماغ ؛ و ٢) تحسين الجهاز العصبي الأيمن والأيسر للدماغ. ٢) دمج دور الدماغ في أسس التعليم والجوانب النفسية للمعرفة (مادة اللغة العربية) والنفسية الحركية (إتقان المهارات العربية) والعاطفية (المواقف والقيم والشخصية) في تصميمات تعلم اللغة العربية. ٣) ربط هذه الجوانب الثلاثة بطبيعة أهداف وأساليب واستراتيجيات وتقنيات تعلم اللغة العربية. على هذا الأساس، يمكن إدراج علم الأعصاب في معيار تطوير المناهج العربية في العصر الحديث.

الكلمات الرئيسية: تطوير المناهج ، علم الأعصاب ، اللغة العربية

Abstrak

Tujuan dari artikel ini membahas peran neurosains dalam modernisasi kurikulum bahasa Arab, termasuk rekonstruksi strategis dan praktis. Salah satunya adalah munculnya integrasi internasional, pembelajaran berbasis otak, dan pengembangan karakter berdasarkan pendekatan ilmu saraf atau neurosains. Prinsip dasar penelitian ini adalah adanya pernyataan fungsional otak kanan sebagai landasan pengembangan kurikulum bahasa Arab. Tulisan ini bertujuan untuk mendemonstrasikan bagaimana proses pembelajaran bahasa Arab dapat diintegrasikan dengan pendekatan neurosains dengan mengoptimalkan fungsi otak kanan dan kiri. Jenis penelitian ini yakni studi pustaka dengan analisis konten (analysis conteni) berupa analisis deskriptif. Metode penelitian menggunakan sumber primer berupa artikel terdahulu, buku. Hasil

penelitian menunjukkan bahwa penerapan neurosains dapat diimplementasikan ke dalam formulasi pengembangan kurikulum bahasa Arab dengan Circuit; 1) optimalisasi sistem saraf otak kanan dan kiri; dan 2) optimalisasi sistem saraf otak kanan dan kiri. 2) Memasukkan peran otak ke dalam landasan pendidikan dan aspek psikologis kognitif (substansi bahasa Arab), psikomotor (penguasaan keterampilan bahasa Arab), dan afektif (sikap, nilai, dan karakter) ke dalam rancangan pembelajaran bahasa Arab; dan 3) menghubungkan ketiga aspek tersebut ke dalam hakikat tujuan, metode, strategi, dan teknik pembelajaran bahasa Arab. Atas dasar itu, ilmu saraf dapat dimasukkan ke dalam standar pengembangan kurikulum pembelajaran bahasa Arab era modern.
Kata Kunci: *Pengembangan Kurikulum, Neurosains, bahasa Arab*

INTRODUCTION

The process of developing an open curriculum invites stakeholders to look for something in the sociological realm. This is due to the lack of ability to manage a subject-centered curriculum, and the completeness of the Arabic curriculum components. One of the things that can be utilized by stakeholders in the development of the Arabic language curriculum is the functional utilization of the brain and science (neurosains).[1]

Because the functional use of the brain can affect the intellect and design thinking of educators when implementing the Arabic language curriculum. The true consequences of difficulties learning Arabic Concentrate on the overall use of the human brain. The functional reasoning gap affects the complexity and breadth of learning Arabic which is evident in educational discourse.[2]

The basis for the development of the Arabic language curriculum must be oriented towards empirical facts that reflect values based on the study of learning Arabic. In this case, it is necessary to analyze the needs of the formation of brain-based learning as a philosophical basis for the development of a neuroscience-based curriculum. Placing the anatomy of the brain function in an educational context will help transfer knowledge in learning by demonstrating that brain anatomy provides rational, emotional, and spiritual aspects.[3] The basic assumption of the study of neuroscience in the realm of Arabic education and curriculum development is shown in this paper, that all

[1] Darussalam Ghazali, "Teori Dan Model Pengajaran Pendidikan Islam," *Masalah Pendidikan* 32 (2009): 113-.

[2] Lias Hasibuan, *Kurikulum Dan Pemikiran Pendidikan* (Jakarta: Gaung Persada, 2019).

[3] Siti Norkhafifah and Nur Syahabuddin, "Desain Pembelajaran Bahasa Arab Berbasis Teknologi Informasi Di Era New Normal," *Al Mi'yar: Jurnal Ilmiah Pembelajaran Bahasa Arab Dan Kebahasaaraban* 5, no. 1 (2022): 53, https://doi.org/10.35931/am.v5i1.908.

forms of knowledge transfer performance are influenced by the function of the right brain nerves.[4]

The basis for the development of the Arabic language curriculum must be oriented towards empirical facts that reflect values based on the study of learning Arabic. In this case, it is necessary to analyze the needs of the formation of brain-based learning as a philosophical basis for the development of a neuroscience-based curriculum.[5] Placing the anatomy of the brain function in an educational context will help transfer knowledge in learning by demonstrating that brain anatomy provides rational, emotional, and spiritual aspects. The basic assumption of the study of neuroscience in the realm of Arabic education and curriculum development is shown in this paper, that all forms of knowledge transfer performance are influenced by the function of the right brain nerves.[6] This research method uses primary data sources based on bibliographic sources in the form of books and scientific journal articles related to the research theme. In particular, Muhammad Yusuf presented a scientific journal article on the study of the right brain in the development of the Arabic language curriculum.[7]

Based on this, the assumptions of the study depart from previous writings about the right brain as the basis for developing an Arabic learning curriculum to overcome dehumanization factors. This paradigm requires expert synthesis to optimize various methods and strategies for learning Arabic.[8] A synthesis analysis that can answer academic needs in a modern context is needed. Entering the 21st century, the functional use of the left brain cannot be denied as a basis for thinking about the need for an Arabic learning curriculum. Both utilize the nervous system (neurosains) to transform knowledge into integral knowledge).[9] Through this study, the authors offer the concept of using neuroscience to develop an Arabic language

[4] Mohammad Ansyar, *Kurikulum Hakikat, Fondasi, Desain, Dan Pengembangan* (Jakarta: Kencana Prenadamedia Group, 2015).

[5] Nurul Isnaini and Nurul Huda, "PENGEMBANGAN MEDIA PEMBELAJARAN KOSAKATA BAHASA ARAB BERBASIS PERMAINAN MY HAPPY ROUTE PADA SISWA KELAS VIII MTsN 10 SLEMAN," *Al Mi'yar: Jurnal Ilmiah Pembelajaran Bahasa Arab Dan Kebahasaaraban* 3, no. 1 (2020): 1, https://doi.org/10.35931/am.v3i1.156.

[6] Pangkalan Ide, *Menyeimbangkan Otak Kiri Dan Otak Kanan* (Jakarta: PT Elex Media Komputindo, 2017).

[7] Muhammad Yusuf, "Desain Pengembangan Kurikulum Bahasa Arab: Pendekatan Otak Kanan," *El-Tsaqafah* 18, no. 2 (2019): 149.

[8] LMARH Ifa, "Pembelajaran Maharah Kalam," *Tanfidziya: Journal of Arabic Education*, 2022, http://ejournal.iaimu.ac.id/index.php/tanfidziya/article/view/99.

[9] Ulin Nuha, *Metodologi Super Efektif Pembelajaran Bahasa Arab* (Yogyakarta: Diva Press, 2012).

curriculum design that optimally involves the functions of the right and left brains.[10]

METHOD

This research uses library research with a content analysis approach that is used to solve theoretical problems, both about education or certain educational concepts such as goals and methods. In short, this research is research that collects information and data from various sources and makes it the main object of analysis. This research method uses primary data sources that rely on bibliographic sources in the form of books, scientific journal articles related to the study theme.

DISCUSSION

A. Arabic Curriculum Development

Curriculum as an academic subject is more concerned with the reality of curriculum concepts[11] deeply rooted in academia. An understanding of this knowledge pervades the entire educational process. In other words, it can be assumed that science prioritizes educational activities rather than the interests of teachers and students. According to Burhan Yusuf Habibi, science is oriented towards communication and global insight, so that the curriculum as an academic subject becomes the center of attention in the learning system. Furthermore, the concept of a learning mindset was developed and perfected from teacher centered to learner centered at the 2013 curriculum level. Student-centered learning can provide multidimensional scientific insights by integrating student learning styles (learning style).[12]

Curricula that emphasize teachers and students as objects tend to view science as a source of truth to develop intellectual power. The curriculum makers of academic subjects are perennialists and essentialists who cultivate children's intellectual capacity to achieve universal truths and instill self-discipline from sources of truth such as global religious values.[13]

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[10] Suyadi, *Teori Pembelajaran Anak Usia Dini Dalam Kajian Neurosains* (Bandung: PT Remaja Rosdakarya, 2014).

[11] Mohammad Jailani et al., "Meneguhkan Pendekatan Neurolinguistik Dalam Pembelajaran: Studi Kasus Pada Pembelajaran Bahasa Arab Madrasah Aliyah," *Jurnal Pendidikan Agama Islam Al-Thariqah* 6, no. 1 (2021), https://doi.org/10.25299/al-thariqah.2021.vol6(1).6115.

[12] Suyadi, *Teori Pembelajaran Anak Usia Dini Dalam Kajian Neurosains*.

[13] Moh. Khoiruddin, "Analisis Kebijakan Kurikulum Pendidikan Islam Di Lembaga Pendidikan Islam," *(JOIES: Journal of Islamic Education Studies* Volume 1, (2016): 162–65.

Arabic has four language skills[14], yang tidak hanya berfungsi sebagai instrumen untuk melestarikan ajaran dan nilai-nilai Islam, tetapi juga berfungsi untuk mendorong pengembangan kecerdasan dan kreativitas peserta didik melalui aspek psikologis (emosi, perasaan, dan kejiwaan) serta pengembangan jiwa. tenaga produktif yang memiliki jiwa pesaing, sabar, rendah hati, harga diri (self-esteem), dan kemampuan mengendalikan diri which not only functions as an instrument to preserve Islamic teachings and values, but also functions to encourage the development of intelligence and creativity of students through psychological aspects (emotions, feelings, and psychology) and mental development. productive workers who have a competitive spirit, patience, humility, self-esteem, and the ability to control oneself or lust (self control).[15] As humans who need social communication, the intensity of communication intelligence in science and religion can be built through Arabic. The focus on Arabic makes introduction the main dimension for keeping spoken and written Arabic contained in the study of Arabic. The 19 Arabic language studies are then arranged into interconnected curriculum components in order to reconstruct the main goal of curriculum development, which is to help students develop analytical skills in various life issues that indirectly rub shoulders with humanity.[16]

The basic principles of designing the four language skills are incorporated into the Arabic curriculum. The basic principles of this curriculum are then outlined in learning programs which include learning objectives, teaching materials, learning methods, learning activities, learning media, and learning assessment.[17]

The main elements in the formal object of the Arabic language curriculum become the realm of cognitive-integrative knowledge as a whole, as well as conceptually in building the process of student and teacher interaction as learning resources and scientific operations of learning Arabic.[18] The curriculum that is made with basic principles must inspire and strive for

[14] S Sunardi, *Penerapan Model Pembelajaran Windows Shopping Untuk Meningkatkan Maharah Kalam Pada Siswa Kelas XI Madrasah Aliyah Darul Masakin Karang Lebah Tahun ...* (etheses.uinmataram.ac.id, 2021), http://etheses.uinmataram.ac.id/2269/.

[15] Ihsana Khuluqo, *Belajar Dan Pembelajaran Konsep Dasar Metode Dan Aplikasi Nilai-Nilai Spiritualitas Dalam Proses Pembelajaran* (Yogyakarta: Pustaka Pelajar, 2017).

[16] Jailani et al., "Meneguhkan Pendekatan Neurolinguistik Dalam Pembelajaran: Studi Kasus Pada Pembelajaran Bahasa Arab Madrasah Aliyah."

[17] Sa'diyah, *Strategi Pembelajaran Bahasa Arab Penuh Inovasi Dan Kontemporer* (Bandung: PT. Raja Grafindo Persada, 2019).

[18] Najamuddin Muhammad, *Memahami Cara Kerja Gelombang Otak Manusia: Menggali Dan Menyikap Sejuta Kedahsyatannya Untuk Kemajuan Diri* (Yogyakarta: Diva Press, 2018).

integration between nations, brain-based learning, and character development. The synergy of the three basic sub-principles will result in continuous innovation and optimal organizational management that will unite the relevance, synchronization and efficiency of the development of the basic Arabic curriculum.[19]

B. Approach Nourosains

Neurosains adalah ilmu yang menjelaskan hubungan antara otak dan pikiran (otak-pikiran koneksi), atau jiwa dan tubuh. Neurosains adalah ilmu yang mempelajari fungsi dan sistem saraf otak, yang kemudian berkembang dan berkembang dalam anatomi tubuh manusia. Pada dasarnya, ilmu saraf Neuroscience is the science that explains the relationship between the brain and mind (brain-mind connection), or soul and body. Neuroscience is a science that studies the function and nervous system of the brain, which then develops and develops in the anatomy of the human body. Fundamentally, neuroscience is concerned with the neuro-anatomy of the brain (its structure) and the neurophysiology of the brain (its parts and functions), both of which contribute significantly to the transfer of moral and rational knowledge.[20]

Science in science accepts the interpretation of cognition in brain performance, which is then developed in micro and macro active cells and gives rise to new meanings in science. In general, neuroscience has important goals in studying the human brain, namely: explanation, explaining how the nervous system can work throughout life, seeing the sensory system that regulates responses to stimuli, controlling working memory, and explaining mysterious events such as Will and intention; and control, seeking knowledge of the use of the human brain in the prevention and treatment of diseases of the nervous system.[21]

The results of research on the progress of neuroscience give birth to mental processes that do not just act on stimulus-response, but also involve biological mechanisms that can bring about brain performance when carrying out an action that allows experts to enter the human brain (living brain) and study it carefully.[22] Duties and responsibilities: make sales in order to be able to achieve the targets given by the company, by working with intermediaries (dealers) to carry out old to new paradigms in neuroscience. The paradigm

[19] Munir, *Perencanaan Sistem Pengajaran Bahasa Arab* (Prenada Media, 2016).

[20] Jensen, *Pembelajaran Berbasis Kemampuan Otak: Cara Baru Dalam Pengajaran Dan Pelatihan* (Yogyakarta: Pustaka Pelajar, 2017).

[21] Douglas Brown, *Prinsip Pembelajaran Dan Pengajaran Bahasa* (Jakarta: Dubes Amerika Serikat, 2008).

[22] Jensen Eric, *Brain Based Leaerning: Pembelajaran Berbasis Kemempuan Otak, Cara Baru Dalam Pengajaran Dan Pelatihan* (Yogyakarta: Pustaka Pelajar, 2019).

shift in neuroscience gave birth to the widest possible field of study, allowing experts to carry out experiments and practical implications into aspects of human life while still focusing on the nervous system.

In the Arabic language curriculum, the term learning cannot be separated from the feeling (emotional) element that regulates the information center of knowledge directly. The dimensions of perception and sensation are important in the acceptance of Arabic knowledge which is taken over by the neuroscience system. The contribution of the nervous system to knowledge is fully evaluated. Educational neuroscience focuses on the broad term of learning by incorporating memory, perception, and the role of the mind and developing cognitive frameworks in the teaching and learning process. The role of neuroscience in education can of course be applied to the four language skills namely istima', kalam, qira'ah and kitabah in the process of learning Arabic which depends on memory, perception, feelings, soul, and reason.

According to the foundation of educational activities, the brain's nervous system plays the most important role in actualizing the frame of mind and capturing new information. There is no denying that the role of neuroscience in education is growing rapidly. Optimization of the brain as a reflectivity in capturing and managing information is one of the clear evidences of the role of neuroscience in education.[23]

By optimizing the right and left brain nerves, the implications of Educational Neuroscience in the Arabic language curriculum development process can be maximized. The purpose of optimizing the brain is to instruct the entire nervous system to jointly involve as many senses as possible at the same time, giving rise to the goal of learning Arabic which involves rational, emotional, psychological, and spiritual components. The following is an overview of how Neuroscience is integrated into the Arabic language curriculum development process.[24]

By optimizing the right and left brain nerves, the implications of Educational Neuroscience in the Arabic language curriculum development process can be maximized. The purpose of optimizing the brain is to instruct the entire nervous system to jointly involve as many senses as possible at the same time, giving rise to the goal of learning Arabic which involves rational, emotional, psychological, and spiritual components. The following is an overview of how Neuroscience is integrated into the Arabic language

[23] Afib Ruliansyah, *Model Pembelajaran Brain Based Learning Bermuatan Multiple Intelligences* (Bayuwangi: LPPM IAI Ibrahimy, 2017).

[24] Ismail Suardi Wekke, *Pembelajarn Bahasa Arab Di Madrasah* (Yogyakarta: Deepublish, 2018).

curriculum development process. It is better, before receiving learning information or language learning materials, optimize the relationship between the soul and mind. Relaxation can be done by praying before studying or listening to certain music before carrying out learning activities. The notes in music gradually activate brain waves, keeping them alert for information and helping to transfer information over the long term. According to this statement, it is appropriate for experts in Arabic language education to understand how the brain works and the natural development of students so that the brain can move purely (purely) to produce the natural potential of student brain development through neuroscience in Arabic language education.

C. The Role of Neuroscience in the Development of Arabic Language Curriculum

Educators are not the only experts in the field of the brain, according to David A. Sousa in the study of Educational Neuroscience. However, education is the only profession that constantly touches and changes the brain. 43 new humans use 5-8% brain potential and 10-15% brain application in educational contexts. The role of the brain which has an important meaning in terms of the nafs, qalb, and ar-ruh cannot be separated from the formulation of education in the Arabic language curriculum. Thus, in the neuroscience approach from an Islamic perspective, the essence of education is to produce human beings who consist of various physical, spiritual and intellectual elements; IQ/EQ/SQ; as well as Cognitive, Affective, and Psychomotor aspects.[25]

Psychologically, students' learning needs include a sense of security, comfort, ability, freedom, affection or attention, success, and existence. The most important factor in the scope of learning is this sense of security and affection. Furthermore, in order to be able to formulate an Arabic curriculum, the right brain and the left brain need to be optimized so that there are no gaps and to foster a balance in determining Arabic learning objectives, Arabic learning methods, Arabic learning techniques, and learning Arabic evaluation.

All aspects of Arabic learning activities start from the potential of human nature, especially the brain's nervous system (neurosains). This nervous system has an educational basis as well as a psychological basis in managing Arabic learning materials. The educational foundation is engaged in cognitive aspects (basic knowledge of Arabic) and psychomotor (skills in Arabic). Likewise, the psychological basis influences the affective aspects of attitudes, character, emotions, feelings, and psychology. Another goal of this psychology and education foundation is to integrate the roles of the right and

[25] Winkel, *Psikologi Pengajaran* (yogyakarta: Media Abadi, 2012).

left brains in the development of emotional intelligence (EQ), intuitive skills, and interaction learning as well as sharpening logical skills in reading and writing Arabic. This is the second runway.[26]

Arabic as a second language in Indonesian society is different from Arabic in Arabic-speaking communities. The learning system applied in the world of Arabic education shows this difference. To create language learning products with various approaches, the process of learning Arabic must have clear goals and approaches.

In general, the purpose of learning Arabic includes two basic foundations: educational foundations and psychological foundations. Both have different goals based on the needs of educators and students. Learning systems and strategies are closely related to the educational foundation of learning Arabic. The psychological foundation of students learning Arabic is related to their potential, abilities, needs, interests and talents, as well as their inner satisfaction. The purpose of learning Arabic is to provide language rules which include maharah istima, kalam, qira'ah, and kitabah, as well as being integrated with other scientific fields.[27] Nonetheless, the objective form of learning Arabic involves the brain as the main center of thought. The purpose of learning Arabic is to improve brain function and knowledge.

The purpose of this research is to strengthen students' attitudes and knowledge so that they can think rationally about everything from factual issues to language skills. Including the context in understanding the language of Islam, which uses Arabic in the Al-Qur'an, Al-Hadith, and books in Arabic. Another accomplishment in the formulation of these objectives is to assist the development of deeper and more detailed insights into the disciplines being pursued. Learning Arabic with a neurolinguistic approach as an instrument objective can easily increase understanding, observation, and response in mastering language in the current context.

Arabic language learning approaches and systems produce a variety of processes and products. This is influenced by the Arabic language learning method approach. The mind map method is a method of learning Arabic proposed by the author according to the neuroscience approach. Determination of this method as a refinement of the psychological method that focuses on one approach to the brain in learning Arabic, namely the right brain. The role of mind maps as a basic framework for thinking does not only

[26] Erniati, "Pembelajaran Neurosains Dalam Pembentukan Karakter Peserta Didik Pada Pondok Pesantren," *Jurnal. Stadi Islamika* 12, no. 1 (2015): 123.

[27] Banawi, "Keefektifan Model Pembelajaran IPA Berbasis Karakter Dalam Meningkatkan Budi Pekerti Siswa Sekolah Dasar" (UNY, 2018).

involve mental development and thought associations, but also the foundation of education by paying attention to students' preferences and inner satisfaction.[28]

The mind map method in learning Arabic does not only focus on the eyes as one of the five senses, but also on the mind and heart. However, human beings contain all the senses to embody rational, emotional and spiritual values in learning. Of course, the integration and interconnection of knowledge is needed so that the method of learning Arabic does not become mere discourse. In learning Arabic, a series of systemic integrations and interconnections is expected to form a holistic scientific character that unites a combination of integrative-comprehensive ways of thinking and forms a mindset that represents the reflectivity of the brain's work in learning. In the field of Educational Neuroscience, learning Arabic using the mind map method approach is very useful for increasing motivation.

The application of the Arabic language curriculum that has been developed with the approach and objectives of learning Arabic is the most important aspect of learning Arabic. The application of learning techniques and strategies requires a synergy of the established methods so that the learning process becomes creative, effective, and fun. Arabic language learning techniques emphasize PAIKEM aspects which foster a learning atmosphere where students actively ask questions, ask questions, and express ideas. In terms of neuroscience, this learning technique can be implemented in a mind map-based learning method. Implementation of active learning applications using the mind map method by taking several steps, namely:[29] The teacher conveys the competencies to be achieved, the teacher presents concepts or problems that will be responded to by students or vice versa which has alternative answers, forms groups of 2-3 people per group, each group takes inventory or records alternative answers to discussions, each group (randomized according to certain groups) read out the results of the discussion and the teacher recorded on the blackboard and grouped according to student needs.

The previous strategy implies that teachers and students apply the law of cross-brain guided processing, which states that the views of right objects can be processed by the left brain and the views of left objects can be processed by the right brain. Thus, during the learning process, the right brain

[28] Adullah Hamid, "Penanaman Nilai-Nilai Karakter Siswa SMK Salafiyah Prodi TKJ Kajen Margoyoso Pati Jawa Tengah," *Pendidikan Vokasi* 3, no. 2 (2013): 19.

[29] Nurnaningsih, *Tokoh Filsuf Dan Era Keemasan Filsafat* (Makassar: Pustaka Almaida, 2017).

and left brain will be optimally optimized, conceptually, and rationally. After the learning technique is applied, it can be found a comparison of Arabic learning concepts between students and teachers to make matches.[30] However, the technique depends on the teacher; Teachers are expected to be able to carry out creative processes within the scope of learning so that the objectives of learning Arabic concerning the psychological basis and the educational process can be carried out.

An educational process designed in such a way as to develop learning from the curriculum process will not escape evaluation. Learning evaluation is used so that developers, both within the organizational structure of the educational curriculum and educators, can continue to innovate according to the characteristics and needs of the community. Evaluation of learning Arabic The neuroscience approach uses a summative evaluation that looks at the entire system of planning, design, and full implementation of an organization's Arabic language curriculum.[31]

CONCLUSINS

Based on the evidence presented above, the researcher can conclude that neuroscience studies use the law of the brain's day in the development of the Arabic language curriculum. This topic is influenced by educational and psychological research that improves cognitive, affective, and behavioral processes. This process is then applied to the objectives, methods, techniques and strategies for teaching Arabic, so that the knowledge obtained through the nervous system (neuroscience) in the Arabic curriculum becomes an integral part of the curriculum (integral knowledge). Furthermore, the neuroscience approach to the Arabic language curriculum is in line with the principles implemented by the new curriculum, namely learning mindsets are developed and enhanced with learner-centered learning. This mindset involves the nervous system, especially the right and left brain, whose role is to provide an overview of objects and analysis so that students are more creative and innovative in managing their learning. Thus, students acquire multidimensional knowledge that is not only fixated on the material, but also affective skills and values in the process of learning Arabic.

[30] Aminul Wathon, "Neurosains Dalam Pendidikan," *Jurnal Lentera:Kajian Keagamaan, Keilmuan Dan Teknologi* 1 (2016): 285.

[31] Tarmizi Thalib, "Pengalaman Spiritual Dalam Pandangan Neuropsikologi" (Tesis UGM, 2018).

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