Artificial Intelligence in Islamic Character Education Imam Al-Ghazali's Perspective

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Abstract

The world of education is undergoing a paradigm shift from the classical era to the digital era. This adult pupil has begun to get caught up with the emergence of Artificial Intelligence (AI) that can help pupils in completing tasks. Nevertheless, the existence of AI also brings new challenges to the Islamic character of pupils. The purposes of this research are: (1) To describe Artificial Intelligence in education (2) To describe the Artificial Intelligence in Islamic character education from the perspective of Imam Al-Ghazali. The results of this study show that AI in the world of education can shape students more independently and help teachers develop learning media. Despite this, Artificial Intelligence causes students to reduce human interaction and decrease social activity in the classroom. Priest Al-Ghazali believes that AI can help students in improving their knowledge of science and technology, but can not shape the character of students who are charismatic and understand their religious teachings with clear sources like Al-Qur'an and Al-Hadits, not from the Internet.Based on the research that has been carried out, it can be concluded that the use of AI in the education of Islamic character according to Imam Al-Ghazali is still less relevant and still needs to be accompanied by a teacher to form the character of the student who practices karimah according to the teachings of the religion clearly origin.

Keywords: artificial intelligence, education, character, al-Ghazali

A. Introduction

Education is a deliberate process in shaping the environment and learning process to produce students who are religious, intelligent, polite, and have special skills that are useful for themselves and the surrounding community. The world of education should be able to provide a strong essence in shaping the character of students, because science will slowly disappear according to the activities of students, while character will always be attached to the personality of students (Yusrianum & Nurmawati, 2023).

The character education program in Indonesia has been regulated in Presidential Regulation no.87 of 2017 in article 1. Character education is one of the programs provided in educational institutions to strengthen the character of learners in

shaping the character and morals of good students. A strong learner character will help him/her to be better prepared for social life. The character education program that is currently being promoted aims to build students who have the spirit of Pancasila, have faith and noble character, reason critically, creatively, and independently (Haryati & Hidayat, 2023). The five pillars of character education that are part of the Mental Revolution Movement include religion, nationalism, independence, mutual cooperation, and integrity (Amalia & Maulida, 2023)

Technological advances bring new colors in the world of education, where more and more renewal of learning media that can be accessed by teachers and students. Technological advances have a positive influence in providing easy access to learning for wider and more open learners. However, recently the world of education has been worried about the emergence of machine-made intelligence called Artificial Intelligence (AI) (Wiranto & Suwartini, 2019).

The use of AI in learning does provide convenience to students in learning activities. However, on the other hand, the use of AI gradually reduces the interaction between learners and their environment. The lack of direct interaction can cause learners to be more familiar with the internet world and reduce direct contact with humans around them (Aziz et al., 2023).

Character education requires special attention, especially in Islamic character education which instills the formation of akhlakul karimah in students. One of the Muslim scholars who focuses on moral education is Imam Al-Ghazali. His works that are phenomenal among pesantren such as the books Ayyuhal Walad, Bidayatul Hidayah, and Ihya Ulumuddin, mostly discuss character education to form students who not only have intelligence, but also form students who are noble and highly dedicated to education. (Abdul Rahman & Baktiar Nasution, 2023).

The discussion related to AI in Islamic character education for students is an interesting topic to be researched more deeply so that educators and parents can better control the use of cellphones in children. This research will describe how Imam Al-Ghazali's thoughts in dealing with Islamic character education in the era of Artificial Intelligence (AI).

B. Methods

Research related to Artificial Intelligence (AI) in Islamic character education from the perspective of Imam Al-Ghazali uses this type of literature study research. Research data is obtained through written sources available in libraries and the internet such as books, articles, journals, e-books, and other literature sources related to Artificial Intelligence (AI), Islamic character education, and Imam Al-Ghazali's thoughts on the topic of character education (Adlini et al., 2022).

This research begins with observing the phenomena that are happening in educational institutions. Then collecting data related to the research topic. The data that has been collected will be sorted according to the needs of the discussion in the article so that it becomes a unified and interconnected source of information. The last process in this research is to conclude the results of the analysis into a concise and valid information regarding Islamic character education from the perspective

of Imam Al-Ghazali. Based on the process that has been described, it can be concluded that the flow in this study follows Miles and Hubarman's data analysis (Thalib, 2022).

C. Results

Artificial Intelligence in Education

Artificial Intelligence (AI) is no longer a strange thing to hear, especially for students. Artificial Intelligence is a step towards creating computers, robots, applications, and even programs that work with human-like intelligence. However, in the field of education, AI is more directed towards the intelligence of programs and applications that are designed in such a way that the implementation of the education process is helped and eliminates existing obstacles. (Razak, 2019).

At the beginning of the emergence of artificial intelligence, Artificial Intelligence did not yet have the nickname it has today. The term AI was popularized by an MIT professor named John McCharthy on August 31, 1957 when he hosted the Dartmouth Conference. Until now, the term is increasingly popular, supported by the presence of sophisticated technology so that the development of AI can help humans in all aspects of life (Serdianus, 2023).

The use of AI in education today is very varied and can help teachers and students in following the learning program (Putri et al., 2023). Here's how Artificial Intelligence is used in education (Zahara et al., 2023):

1. Using Capilot GPT to search for learning materials

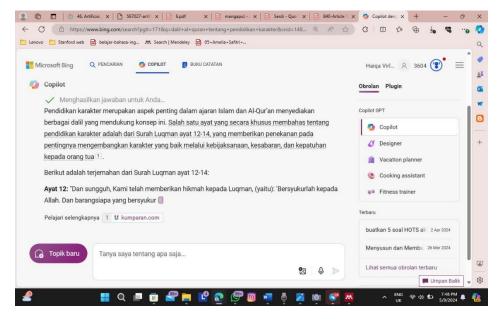


Figure 1: Use of GPT Copilot to Assist with Tasks

2. Using soundcloud.com to edit learning audio

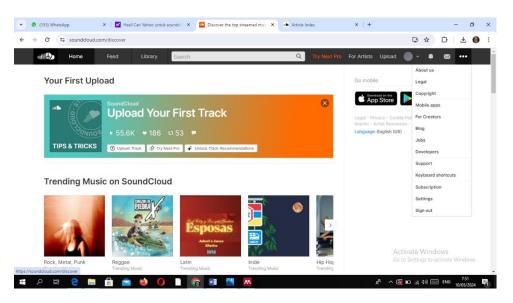


Figure 2: Using soundcloud.com to edit learning audio

3. Use Canva to create learning videos, presentations, and some supporting images for learning media

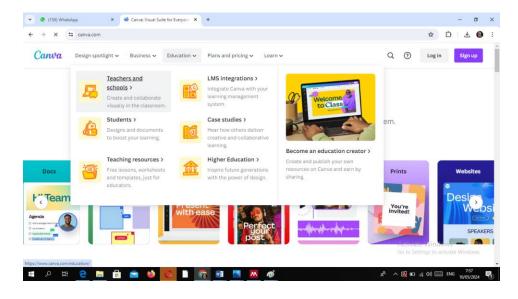
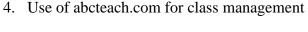


Figure 3: Using Canva to create learning videos, presentations, and some supporting images for learning media.



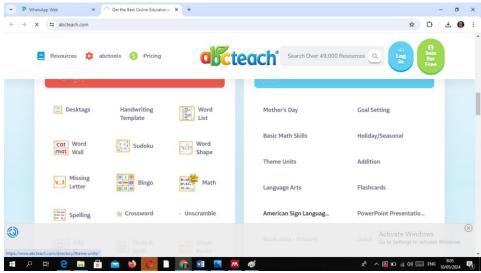


Figure 4: Using abcteach.com for class management

5. Use DeepL Translator to translate text

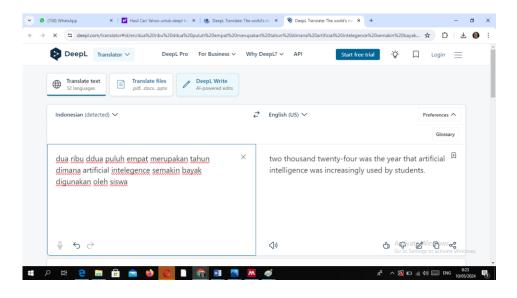


Figure 5: Using DeepL Translator to translate texts

When viewed from its function, AI is designed to facilitate humans in working, which is why AI must be made as similar and as good as what humans do. However, AI is a computer algorithm design that continues to undergo improvements and updates by humans, so maximizing it requires intelligence itself (Siahaan et al., 2020).

Al-Ghazali's Thoughts on Islamic Character Education

Imam Al-Ghazali is one of the most famous Muslim scientists in the history of Islamic civilization. He was a philosopher and theologian of Persian nationality in medieval times. The giving of his name is inseparable from the area of his birth, namely the land of Gazelah which is located in the city of Thus, Khurasan (Iran). Al-Ghazali was born in 450 AH (19059 AD). (Azahra, 2022).

Al-Ghazali is a Sufi who is very concerned about education, because he believes that education plays an important role in forming a society that thinks critically, has a religious spirit, and has noble morals. One of Al-Ghazali's thoughts is that education must be based on good intentions in order to achieve moral and spiritual goodness, not just academic intelligence (Kurniawati et al., 2023).

Al-Ghazali's thoughts on character education are explained in his book entitled Bidayatul Hidayah. He suggests that character education in the world of education is the formation of morals in students, where students are trained to have good human traits without pressure of thought. Character education is comprehensive, regulating how human attitudes towards society, self, and to Allah SWT. The characters formed include religious character by obeying God, responsible character by serving the community, and healthy lifestyle to maintain physical health (Abdul Rahman & Baktiar Nasution, 2023).

Al-Ghazali's Thoughts on Artificial Intelligence in Islamic Character Education

Imam Al-Ghazali is one of the Muslim scholars who is very concerned about the study of the character of students in accordance with the concept of Islamic education. One of his thoughts in the book Ihya Ulumuddin is that moral education in children must be taught early by parents and the surrounding community. Because Islamic character in children requires direct examples from those closest to them (Faza, 2021).

Islamic character education in students should begin by instilling Islamic knowledge in the Qur'an and Hadith, as well as Islamic stories that are clearly sourced. The goal is for students to avoid the misuse of the internet today which is rampant with pornographic knowledge that can damage the minds of students (Filasofa, 2021).

Imam Al-Ghazali understood Islamic character education as a process that requires the synergy of parents, family, community, and school as the most significant element of character building. Good moral education needs to be formed directly with the support of the closest people, so that students will feel more confident in imitating good behaviors according to those in their environment compared to AI which only provides knowledge, but cannot provide a direct picture of behavior in accordance with the guidance of Islamic education. (Sanuhung et al., 2021).

The role of teachers in the world of education, especially in shaping Islamic character, is very important according to Al-Ghazali. The existence of the teacher

in the learning process will guide, perfect the child's understanding, clean his dirty mind, and always remind students to obey Allah. The existence of sincere teachers in educating will reassure students' hearts, so this will make students believe that the development of technology cannot be separated from the role of teachers who teach good manners and respond to student expressions in class. (Lubis, 2023).

D. Discussion

Artificial Intelligence in Education

Michael W. explains the definition of AI through its origin, which was started by Alam Mathison Turing, a mathematician, logician, and computer expert from England. Someone who has the nickname 'The Father of Modern Computer Science' defines AI as an artificial intelligence based on algorithms or computer programming (Serdianus & Saputra, 2023)

According to Rich and Knight, artificial intelligence is a study of how to make computers do things that can currently be done better by humans, like humans who have brains, computers also have similar things in the form of software as their brains (Tjahyanti et al., 2022).

Artificial Intelligence (AI), also known as artificial intelligence, is a branch of computer science that aims to develop systems and machines that are capable of performing tasks like human intelligence. (Eriana & Zein, 2023). The main goal of developing artificial intelligence is to create machines and systems that can think intelligently, adaptively, and independently. Although there are still many challenges and limitations that need to be overcome, the development of AI has brought significant impact in various industries and opened up new opportunities in dealing with complex challenges faced by humans. (Serdianus, 2023).

In line with what was stated by A. Simon in 1987 which states that artificial intelligence or AI is an area of research, application, and instruction has to do with programming computers to do something that in the view of humans it is considered intelligent. (Putri et al., 2023).

The use of AI in education largely provides convenience for teachers and students in accessing platforms that can support learning programs. Both teachers and students can increase their creativity in learning and managing learning materials to be more interesting through power points, interactive videos, games on websites and so on (Khairini & Yogica, 2021).

The use of AI in education does have a significant positive impact. However, it does not mean that it is free from the negative side of its use in learning programs. A research shows the results that AI in education has a great threat of giving the effect of addiction and dependence of students on the internet, misuse of the internet for adult access that lacks supervision, lack of interaction of students with the surrounding environment, and potentially destroying Islamic ethical principles such as tawhid, worship, and wisdom (Arinta Lailatul M et al., 2023).

Al-Ghazali's Thoughts on Islamic Character Education

Imam Al-Ghazali's thoughts are important in terms of Islamic education and understanding religious moderation, especially in terms of facing the challenges of religious and cultural differences. Imam Al-Ghazali's thoughts and opinions emphasize the importance of a balanced understanding of religion and emphasize values, such as tolerance, compassion and peace, as well as the search for moral perfection as part of the Islamic religion (Nasri & Tabibuddin, 2023).

1. Balanced Understanding

person are as follows.

- Imam Al-Ghazali's thoughts on balanced understanding are related to the Islamic concepts of science and spirituality, emphasizing the importance of balance between science and spiritual experience in human life (Allailiyah, 2020).
- 2. Emphasizing the Values of Tolerance, Compassion, and Peace Tolerance according to Imam Al-Ghazali contains several elements in it, namely intellectual, social, and spiritual. The intellectual element refers to moral awareness, thus encouraging not to defend oneself and be indifferent to others. Then the social element, in this social element related to humans and people or the environment around them, they will respond to whatever happens under their awareness. Furthermore, there is a spiritual element related to commitment to action. Imam Al-Ghazali's view of tolerance is expected to foster awareness, commitment in action, and sensitivity Imam Al-Ghazali also emphasizes the importance of peace values in Islam. This is because peace can give birth to a sense of security and tranquility for humans (Wijayanti & Abidin, 2022).
- 3. The Quest for Moral Perfection Imam Al-Ghazali argues that morals are traits that have been embedded in the human soul and can cause actions to others. This character becomes the hallmark of every human being so that it can be recognized by others He also stated that the stages in the formation of morals that can be achieved by a

Takhali, which is the first step that a person must take by trying to rid himself of despicable behavior or morals. Takhali means eliminating addiction to the pleasures of worldly life by detaching oneself from sin and trying to control oneself. (Daulay et al., 2021). Tahalli, is an effort to fill oneself with habitual attitudes, behaviors, and praiseworthy morals. This step can be taken after eliminating bad morals and aims to fill oneself with good traits, attitudes, and actions (Rohman et al., 2022). This tajalli can be interpreted as the perfection of human morals after going through the takhali and tahalli phases. It is at this stage that humans can achieve noble morals (*akhlakul karimah*) (Ira Suryani, 2021).

Al-Ghazali's Thoughts on Artificial Intelligence in Islamic Character Education Based on the results of the above research, it can be seen that the use of AI in education helps teachers and students in deepening material and developing learning media. However, AI has challenges in shaping the character of students in accordance with the principles of Islamic education. (Imamah et al., 2021).

Artificial Intelligence in Islamic character education from Al-Ghazali's perspective views that the main purpose of Islamic education is to form humans who have intellectual intelligence, social spirit, and do not forget spiritual strength. The use of AI in education does foster the character of independence and creativity of teachers and students, but indirectly begins to erode the values of Islamic character education that should be formed by teachers to students.

Imam Al-Ghazali views the formation of Islamic character in the world of education including faith, morals, reason, social, and physical education. Teachers as icons in schools should be able to provide examples of praiseworthy traits to students such as humble, obedient, virtuous, intelligent, skillful, and istiqomah (Azhari & Mustapa, 2021).

The rise of AI websites that have their respective roles such as canva.com to create videos, presentations, images automatically, Copilot GPT that can answer all questions, soundcloud.com to create audio, abcteach.com to manage learning, and DeepL Translator to translate automatically contradicts the concept of Islamic character education from Al-Ghazali's perspective which emphasizes intellectual intelligence. The use of these websites will indirectly make students lazy to think and rely more on machine artificial intelligence. Dependence on AI will make learners experience a decrease in intellectual intelligence, even though developed human intelligence is a manifestation of gratitude for the intelligence given by Allah SWT. (Putri et al., 2023).

Learning programs that focus on the use of AI tend to form learners who are dependent on the internet and spend more time browsing the internet than direct interaction with humans around them. This situation can potentially make learners anti-social, indifferent to their environment, and not accustomed to applying good interaction behavior according to Islamic teachings. The behavior of students like this is contrary to the principles of Islamic education from Al-Ghazali's perspective which teaches good social behavior to others. (Wijayanti & Abidin, 2022).

Education that implements AI has great potential to shape students who are starting to erode their spiritual strength. The ease of access to learning materials without a teacher to guide them will make students think that the presence of a teacher is not important in learning activities. Whereas in Islamic education not everything can be replaced with AI, especially teachers who can provide good moral examples, pray for their students, and teach religious values that are clearly sourced from the Qur'an and Hadith (Arinta Lailatul M et al., 2023).

Imam Al-Ghazali's concept of character education centers on three principles of Islamic education: intellectual, social, and spiritual. All three can be a brake for today's students who tend to prioritize AI over teachers who teach it directly. Because basically AI is an artificial intelligence that is continuously improved and will never be able to replace humans, especially in Islamic character education which requires direct upbringing, not just one-way learning. Because after all AI is

man-made, of course all the improvements made by AI are human work (Siahaan et al., 2020).

Based on Al-Ghazali's thinking, it is known that Islamic character education in students requires synergy from people around them such as parents, family, teachers, and the surrounding community. The presence of AI provides knowledge to students, but cannot provide examples of social and moral behavior in accordance with the principles of Islamic education. The use of AI in education is permissible, but there needs to be an appeal from parents and teachers so that unwanted deviations do not occur (Siti Masrichah, 2023).

E. Conclusion

Artificial Intelligence in education provides easy access to learning materials and current learning media. Some AI websites that can be utilized in education include canva.com to create videos, presentations, images automatically, Copilot GPT that can answer all questions, soundcloud.com to create audio, abcteach.com to manage learning, and DeepL Translator to translate automatically.

Artificial Intelligence in Islamic character education from Imam Al-Ghazali's perspective emphasizes criticism of the principles of Islamic character education that are starting to be displaced by AI. Imam Al-Ghazali views that the main purpose of Islamic education is to form humans who have intellectual intelligence, social spirit, and do not forget spiritual strength. The use of AI in education does foster the character of independence and creativity of teachers and students, but indirectly begins to erode the values of Islamic character education which will be more effective if formed by teachers to students directly. Likewise, Islamic character education requires the role of the closest people such as parents, family, community, and the environment who teach moral values to students.

REFERENCES

- Abdul Rahman, & Baktiar Nasution. (2023). Pendidikan Akhlak Menurut Imam Al-Ghazali Dalam Kitab Bidayah al-Hidayah Dan Relevansinya dengan Pendidikan Karakter di Indonesia. *Symfonia: Jurnal Pendidikan Agama Islam*, 3(2), 137–172. https://doi.org/10.53649/symfonia.v3i2.55
- Adlini, M. N., Dinda, A. H., Yulinda, S., Chotimah, O., & Merliyana, S. J. (2022). Metode Penelitian Kualitatif Studi Pustaka. *Edumaspul: Jurnal Pendidikan*, 6(1), 974–980. https://doi.org/10.33487/edumaspul.v6i1.3394
- Allailiyah, N. M. (2020). Peran Sains dalam Membangun Kualitas Generasi Islam (Role of Science in Building Quality of Islamic Generations). ... Konferensi Integrasi Interkoneksi Islam Dan Sains, 2, 321–329.
- Amalia, Z., & Maulida, U. (2023). Strategi Guru dalam Membentuk Karakter Siswa melalui Konsep Penguatan Pendidikan Karakter (PPK). *Tarbawi*, 6(1), 23–30. file:///D:/File/Users/lenovo/Downloads/461-Article Text-832-1-10-

- 20230212.pdf
- Arinta Lailatul M, Ana Khoirunisa', Fathur Rohman, Hilda Aualya Azizah, Devi Ardianti, & Aditia Muhammad Noor. (2023). Islam in the middle of AI (artificial intelligence) struggle: Between opportunities and threats. *At-Tuhfah*, *12*(1), 19–27. https://doi.org/10.32665/attuhfah.v12i1.1599
- Azahra, F. (2022). IRJE: Jurnal Ilmu Pendidikan. 3(1), 772–785.
- Azhari, S. S., & Mustapa. (2021). Konsep Pend Islam Menurut Al Ghazali. *Jurnal Review Pendidikan Dan Pengajaran*, 4, 271–278.
- Aziz, R. A., Fitriyanti, Y., Rohman, F., Islam, U., & Ulama, N. (2023). Tantangan Pendidikan Karakter Islami di Era Teknologi. *Tarbawi : Jurnal Pendidikan Islam*, 20(1), 47–62.
- Daulay, H. P., Dahlan, Z., & Lubis, C. A. (2021). Takhall, Tahalli dan Tajalli. *PANDAWA: Jurnal Pendidikan Dan Dakwah*, *3*(3), 352.
- Eriana, E. S., & Zein, A. (2023). Artificial Intelligence. In U. M. Indarwati (Ed.), *Angewandte Chemie International Edition*, 6(11), 951–952. (1st ed.). Eurika Media Aksara.
- Faza, N. (2021). Konsep Pendidikan Akhlak Perspektif Imam Al-Ghazali; Telaah Kitab Ihya Ulumuddin. *Dirosat : Journal of Islamic Studies*, 6(2), 35. https://doi.org/10.28944/dirosat.v6i2.396
- Filasofa, L. M. K. (2021). Kajian Tokoh Islam Klasik Pertengahan: Pemikiran Al-Ghazali Tentang Pendidikan Anak. *EDUSOSHUM: Journal of Islamic Education and Social Humanities*, *1*(2), 52–61. https://doi.org/10.52366/edusoshum.v1i2.18
- Haryati, T., & Hidayat, A. G. (2023). Analisis Program Penguatan Pendidikan Karakter (Ppk) Berbasis Nilai Kearifan Local Maja Labo Dahu Dalam Mewujudkan Profil Pelajar Pancasila Pada Sma Di Kabupaten Bima. *Jurnal Terapung*: *Ilmu Ilmu* Sosial, 5(2), 40. https://doi.org/10.31602/jt.v5i2.12160
- Imamah, Y. H., Pujianti, E., & Apriansyah, D. (2021). Kontribusi guru pendidikan agama islam dalam pembentukan karakter siswa. *Jurnal Mubtadiin*, 7(02), 3–11. https://journal.an-nur.ac.id/index.php/mubtadiin
- Khairini, R., & Yogica, R. (2021). Pengembangan Media Pembelajaran Interaktif Berbentuk Android Packaging Kit (APK) pada Materi Virus. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 5(3), 406. https://doi.org/10.23887/jppp.v5i3.38502
- Kurniawati, I., Silvya, W., & Sari, H. P. (2023). Pemikiran Al-Ghazali Tentang Filsafat Pendidikan Islam Dan Pembentukan Karakter: Relevansinya Untuk Masyarakat. *Tawshiyah: Jurnal Sosial Keagaman Dan Pendidikan Islam*, 18(2), 1–15. https://doi.org/10.32923/taw.v18i2.4014

- Lubis, M. (2023). Relevansi Konsep Pendidikan Islam Al-Ghazali Terhadap Pendidikan Islam Kontemporer. *Islamijah: Journal of Islamic Social Sciences*, 4(3), 226. https://doi.org/10.30821/islamijah.v4i3.12845
- Nasri, U., & Tabibuddin, M. (2023). Paradigma Moderasi Beragama: Revitalisasi Fungsi Pendidikan Islam dalam Konteks Multikultural Perspektif Pemikiran Imam al-Ghazali. *Jurnal Ilmiah Profesi Pendidikan*, 8(4), 1959–1966. https://doi.org/10.29303/jipp.v8i4.1633
- Putri, V. A., Carissa, K., Sotyawardani, A., & Rafael, R. A. (2023). Peran Artificial Intelligence dalam Proses Pembelajaran Mahasiswa di Universitas Negeri Surabaya. *Prosiding Seminar Nasional*, 615–630.
- Razak, A. (2019). *Artificial Intelligence Untuk Pemula* (E. D. Haosari (ed.); 1st ed.). UNIPMA Press.
- Rohman, Aziz W Abdul, & M Islam H. (2022). Konsep Tasawuf Imam Al-Ghazali Dari Aspek Moral Dalam Kitab Bidayatul Hidayah. *Jurnal Pendidikan Dan Konseling*, 4(5), 1509–1514.
- Sanuhung, F., Ichsan, Y., Setyaningrum, N. R., & Restianti, A. F. (2021). Konsep Pendidikan Akhlak Persepektif Imam Al-Ghazali Dan Aktualisasinya Pada Pendidikan Islam Di Indonesia. *Journal of Research and Thought on Islamic Education (JRTIE)*, 4(2), 183–195. https://doi.org/10.24260/jrtie.v4i2.2017
- Serdianus, S., & Saputra, T. (2023). Peran Artificial Intelligence Chatgpt Dalam Perencanaan Pembelajaran Di Era Revolusi Industri 4.0. *Masokan: Ilmu Sosial Dan Pendidikan*, 3(1), 1–18. https://doi.org/10.34307/misp.v3i1.100
- Siahaan, M., Jasa, C. H., Anderson, K., & Valentino, M. (2020). Penerapan Artificial Intelligence (AI) Terhadap Seorang Penyandang Disabilitas Tunanetra. *Journal of Information System and Technology*, 01(02), 186–193.
- Siti Masrichah. (2023). Ancaman Dan Peluang Artificial Intelligence (AI). *Khatulistiwa: Jurnal Pendidikan Dan Sosial Humaniora*, *3*(3), 83–101. https://doi.org/10.55606/khatulistiwa.v3i3.1860
- Thalib, M. A. (2022). Pelatihan Analisis Data Model Miles Dan Huberman Untuk Riset Akuntansi Budaya. *Madani: Jurnal Pengabdian Ilmiah*, *5*(1), 23–33. https://doi.org/10.30603/md.v5i1.2581
- Tjahyanti, L. P. A. S., Saputra, P. S., & Gitakarma, M. S. (2022). 1062. *Critical Care Medicine*, *I*(1), 15–20. https://doi.org/10.1097/01.ccm.0000474893.34162.5c
- Wijayanti, I., & Abidin, Z. (2022). *Pendidikan Tolerasi Al-Ghazali Dalam Melawan Tindak Kekerasan Di Indonesia*. 6(2), 140–161.
- Wiranto, E. B., & Suwartini, S. (2019). Artificial Intelligence and Trustworthy

- Principles in Global Islamic Education. *Mind, Machine, and Metaphor*, 3–33.
- Yusrianum, Y., & Nurmawati, N. (2023). Analisis Penilaian Karakter Berbasis Asesmen Kompetensi Madrasah Indonesia (AKMI). *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 3(4), 329–338. https://doi.org/10.31538/munaddhomah.v3i4.288
- Zahara, S. L., Azkia, Z. U., & Chusni, M. M. (2023). Implementasi Teknologi Artificial Intelligence (AI) dalam Bidang Pendidikan. *Jurnal Penelitian Sains Dan Pendidikan (JPSP)*, 3(1), 15–20. https://doi.org/10.23971/jpsp.v3i1.4022