

Artificial Intelligence in Prenatal and Postnatal Child Education: A Review Ibn Qayyim Al-Jauziyyah's Thoughts

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ARTICLE INFO	ABSTRACT
Volume: 4 ISSN: 2963-5489	Education in Islam is lifelong, extending from the prenatal to postnatal phase. Ibn Qayyim al-Jauziyyah emphasized that a child's physical, psychological, moral, and spiritual development must begin in the womb and continue after birth. This principle encompasses practices such as the call to prayer (adhan), giving a good name, aqiqah (ceremonial offering), role models, dietary patterns, and the instilling of moral behavior. Postnatal education, in particular, plays a strategic role in shaping a child's character, morals, and cognitive intelligence. As technology advances, artificial intelligence (AI) offers opportunities to support these educational principles in a more adaptive and systematic way. AI can be implemented in the form of interactive applications, educational chatbots, personalized learning media, and behavioral analysis systems that monitor children's cognitive, emotional, and moral development in real time. A 2020–2025 literature review indicates that AI can increase learning motivation, emotional engagement, and moral stimulation in early childhood, although ethical, theological, and infrastructure challenges still limit its application. This research uses a qualitative literature study approach with sources from Ibn Qayyim's texts, Islamic literature, and educational AI articles and journals. The analysis was conducted through thematic synthesis and concept mapping. The results confirm that the integration of Ibn Qayyim's classical thought with modern AI-based innovations can form a new conceptual foundation for postnatal Islamic education. This integration not only strengthens cognitive aspects but also provides a personalized, adaptive, and data-driven tool for shaping children's morals and character. Therefore, the use of AI aligned with Islamic values has the potential to enrich child-rearing practices within families and educational institutions.
KEYWORD Ibn Qayyim al-Jauziyyah, Prenatal Education, Postnatal Education, <i>Artificial Intelligence</i>	

1. Introduction

Education is the process of learning knowledge, skills, and habits, passed down from one generation to the next through teaching, training, and research. It is also a conscious, systematic effort to create a learning environment that allows students to develop their potential. Through education, individuals can develop intelligence, personality, noble character, spiritual strength, and skills that benefit themselves and others. (Yusuf & Khairunnisa, 2023) Education can make it easier for someone

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to add to or hone several things within themselves so they can develop further, such as intelligence, personality, morals, spirituality, and skills.

Education continues throughout life, beginning at birth, and even early education begins while a child is still in the womb. Childhood education in Islam is divided into two periods: prenatal and postnatal. Prenatal refers to the period before a child is born, or while still in the mother's womb, while postnatal refers to the period after a child is born. (Abdullah, 2017)

To achieve the generally stated goal of Islamic education, namely, developing individuals with morals and devotion to Allah SWT, parents' education for their children is not limited to infancy; rather, the process begins while the child is still in the womb. This is because a child's growth and development begin while still in the womb. (Abdullah, 2017)

Postnatal education, which extends from birth to adulthood, plays a strategic role in shaping a child's morals, character, and moral and cognitive intelligence. In the Islamic tradition, Ibn Qayyim al-Jauziyyah emphasized prenatal and postnatal education, focusing not only on physical aspects and religious rituals, but also on cultivating good behavior, etiquette, character education, and moral upbringing. Contemporary studies of his thinking indicate that education from the age of 0–2 years includes practices such as the call to prayer (adhan), choosing a good name, performing the aqiqah (ceremonial ceremony), providing moral examples, and attention to the child's intake and sensory stimulation, all of which form the foundation for moral and intellectual development. (Saputra & Maemonah, 2019)

Along with this, technological advances, particularly artificial intelligence (AI), present opportunities to support postnatal education in a more systematic and adaptive manner. AI can provide interactive media, personalize learning materials to suit the child's abilities, provide real-time feedback, and monitor character development and moral and emotional skills through data analysis. Recent research supporting this includes: (Fatmawati & Raharjo, 2024) found that the use of AI-based learning videos was able to increase the interest and engagement of 4-5 year old children in moral learning, where the shift from traditional storytelling methods to interactive videos strengthened children's emotional and cognitive engagement.

By combining Ibn Qayyim's classical thoughts on prenatal and postnatal child education with modern AI capabilities, a promising research area emerges: how AI applications can be designed according to Ibn Qayyim's postnatal education principles (e.g., fairness, attention to the senses, communication, moral parenting) so that the formation of children's character, morals and ethics can take place as early and optimally as possible.

2. Literature Review

The rapid development of artificial intelligence (AI) from 2020 to 2025 has opened new horizons in childhood education, including in the prenatal and postnatal phases. Applications such as intelligent tutoring systems (ITS), natural language processing-based chatbots, sensor-based child development monitoring systems, and behavioral analysis platforms have been integrated into early childhood education with the aim of increasing personalization, moral stimulation, and strengthening cognitive and emotional aspects from the beginning of a child's life. Recent literature confirms that AI can provide adaptive learning experiences starting in the golden age, when a child's brain reaches 80% of its capacity, thus technological intervention has the potential to have a long-term impact on character formation. (Yuniawati & Masliati, 2025)

Within the framework of Ibn Qayyim al-Jauziyyah's thought, prenatal and postnatal education emphasize the importance of moral habits, strengthening the five senses, and forming morals from an early age. These principles find relevance in modern AI applications: interactive simulations can be used to introduce moral values, educational chatbots can provide personalized guidance to parents on Islamic parenting, while AI-based analytical systems can monitor children's eating, sleeping, and emotional development in real time, thus aligning with Ibn Qayyim's recommendations for attention to a child's physical, psychological, and spiritual well-being. (Mainuddin, 2022)

However, although various studies show the potential of AI in enriching religio-pedagogical experiences, its application in Islamic-based prenatal and postnatal education is still limited. (Faizin et al., 2025) highlights the need for a "value filter" to ensure AI output aligns with theological and ethical principles of religion. For example, in the context of Islamic Religious Education (PAI), AI applications that present educational games or discussions based on religious texts must be designed to adhere to Islamic principles. Furthermore, limited infrastructure in many early childhood education institutions and parents' digital literacy are factors hindering optimal AI integration.

From a critical evaluation perspective, the 2020–2025 literature highlights two key research needs: (1) stronger empirical evidence, both quantitative and qualitative, on the impact of AI on children's moral, ethical, and emotional development within Ibn Qayyim's prenatal–postnatal education framework, and (2) interventional designs or longitudinal case studies exploring how AI can be personalized to be consistent with Islamic values and the pedagogical practices of Muslim families. Both agendas are relevant not only for expanding AI's contribution to modern Islamic education, but also as a practical foundation for parents, early childhood education institutions, and madrasas seeking to integrate technology with classical educational principles.

3. Methodology

This research employs a literature review with a qualitative analysis approach. Data were obtained from various sources, including texts by Ibn Qayyim al-Jauziyyah, Islamic literature discussing childhood education, and articles and journals related to the application of Artificial Intelligence (AI) in education. Using this approach, the research aims to examine and map the principles of prenatal and postnatal education according to Ibn Qayyim and explore the relevance and potential of utilizing AI to support adaptive, data-driven child education.

The analysis was conducted by grouping the findings into key themes, such as AI-based learning media, the use of chatbots or tutoring systems, the impact of AI on motivation and learning outcomes, and ethical issues. Validity was maintained by documenting the research trail. With this approach, the research is expected to provide a comprehensive overview of the use of AI in Islamic Religious Education (PAI) learning while also identifying research gaps for further development.

4. Results and Discussion

4.1 Theory of Prenatal and Postnatal Education According to Ibn Qayyim al-Jauziyyah

The word "prenatal" is a combination of the words "pre," meaning "before," and "natal," meaning "birth." When combined with the word "education," prenatal education refers to a method of educating a child while still in the womb. This can include maternal habits designed to stimulate the child's intelligence for optimal growth and development. Prenatal education is a conscious effort by prospective parents to educate their unborn child. (Robikhah, 2022) Prenatal care is a process of consciously guiding a child while still in the womb, carried out by the mother before birth. The mother's behavior and movements significantly influence the baby's growth in the womb, which in turn influences the baby's growth and skills after birth. (Ghofur, 2020)

Based on the explanation above, prenatal education is a way for prospective parents, especially mothers, to direct goodness to their children while they are still in the womb. For example, like a mother listening to the baby recite the holy verses of the Qur'an. The prenatal education program according to the thoughts of Ibn Qayyim Al-Jauziyyah is divided into 4, the first is determining a partner, Ibn Qayyim recommends educating children since the child has not yet formed because prenatal education begins since determining a prospective wife, second is marriage as directed by Ibn Qayyim, the next prenatal program is marriage. Marriage is an effort to carry out the sunnah of the Prophet which is not just for the release of lust, but to obtain blessings in religion, third is the period of pregnancy (prenatal) According to Ibn Qayyim, a woman's pregnancy arises because of the mixing of male and female nuthfah due to intercourse. According to Ibn Qayyim, fetal development in the womb is divided into two, namely physical fetal development and psychological fetal development, and finally the birth period (postnatal). Ibn Qayyim explained that when the fetus in the womb is about to be born into the world, Allah SWT determines for him that the position of the fetus' head is initially above and both feet below when it is about to be born, the position will be reversed. This change process is Allah's help for the safety of the fetus and its mother.

Meanwhile, postnatal education is the education humans receive from birth to death within the family environment. All kinds of life knowledge gained from the family are the result of the postnatal family education process. Examples of knowledge gained from the family environment include being taught at birth how to lie face down, eat with the right hand, drink with the right hand, sit, and walk, as well as religious knowledge. The educational process within the family is highly dependent on the environment. In today's modern world, family education does not solely come from parents but is also influenced by others outside the family. (Yusuf & Khairunnisa, 2023)

Ibn Qayyim explained that the five human senses, such as hearing, sight, and reason, are the means of supporting knowledge. Things that must be considered in the process of educating children according to Ibn Qayyim in his book include: being fair to children in giving and forbidding, smearing the baby's tongue with salt and honey to facilitate speech, paying attention to and maintaining the child's food, teaching children to do good. Thus, good child education does not neglect the importance of the facilities that humans have, namely the five senses. (Mainuddin, 2022)

4.1.1 Be fair to children in giving and forbidding

According to Ibn Qayyim, being fair in giving and forbidding children is a child's right. Some scholars say, "Whoever neglects to teach his child what is beneficial to him and leaves him to waste, has truly done him evil. Most children become corrupted due to the lack of role of their parents, who neglect and do not teach their children. Children also cannot benefit themselves and cannot benefit their parents when they grow up. Just as some parents reproach their children for being disobedient, then the child replies, "O father, indeed you were disobedient to me when I was small, so I became disobedient to you when I grew up. You neglected me when I was small, so I neglected you when you were old."

4.1.2 Rubbing honey and salt on the baby's tongue to make speech easier.

"If they are approaching speaking age and want to facilitate their speech, parents should massage (smear) their tongues with honey and salt, as both can help remove mucus that makes speech difficult. The goal is to enable children to speak well and competently. In education, there is one thing that cannot be neglected: communication.

4.1.3 Pay attention to and maintain children's eating habits

Ibn Qayyim stated, "Among the mistakes in parenting is getting children used to filling their stomachs with lots of food and drink. The best parenting pattern is to feed them not until they are full so that they can digest well, their body fluids are stable, their body sweats little, their physique is healthy and they are not susceptible to disease because of the minimum food residue (excrement)." When a child is too full, it will make him tired quickly and disrupt his learning process, conversely, when he is hungry, it also disrupts his learning process. Therefore, paying attention to children's eating and nutrition patterns must also be considered by parents.

4.1.4 Teaching children to do good

Parents are good role models for their children. They are also their children's primary and first educators. Postnatal education is a crucial process in child development, especially in the current era. Attention to a child's emotional, social, and intellectual aspects must be increasingly enhanced. According to Ibn Qayyim, several aspects of education appropriate for today's generation of children include attention to morals, emotional well-being, balance between this world and the hereafter, and parental involvement in their upbringing.

4.2 Artificial Intelligence in Education

4.2.1 Definition of AI and its Applications in Modern Education

Technological developments in the digital era are occurring rapidly and have had a significant impact on various sectors, including education. The use of technology in the learning process not only plays a role in improving the quality of education but also prepares the younger generation to face the challenges of a technology-driven future. However, some teachers, particularly at the elementary school level, still face difficulties adapting to these changes. This is generally due to limited training and understanding of the application of contemporary educational technology. (Firmansyah et al., 2024)

Artificial Intelligence (AI) is a branch of computer science that focuses on developing systems capable of mimicking human cognitive abilities, such as thinking, learning, analyzing, and decision-making. In the context of modern education, AI plays a crucial role in automating learning processes, analyzing educational data, and providing adaptive learning experiences tailored to student needs.

4.2.2 AI in Children's Education

Specifically in children's education, AI offers significant potential to improve the quality and effectiveness of early childhood learning. This technology can be utilized in various forms, such as interactive simulations that enable children to learn through direct experience, developmental analytics to monitor learning progress in real time, interactive applications that present engaging learning content, and adaptive learning media that adjust the level of difficulty and delivery method based on the child's abilities. Some examples of AI applications in children's education include AI-based interactive applications that stimulate cognitive and motor skills, educational chatbots that provide personalized guidance and answer questions, and child behavior analysis systems that monitor interactions, learning habits, and emotional development. The use of AI in

children's education not only improves learning effectiveness but also enables the application of Islamic educational principles, such as moral and character development, in a more adaptive and data-driven manner.(Abbas et al., 2025)

4.2.3 Examples of AI Technology Relevant to Children's Education

The thinking of Ibn Qayyim al-Jauziyyah emphasizes the importance of postnatal education for children, namely the development of morals, the habituation of good behavior, and the stimulation of moral and cognitive development from birth. In the modern context, Artificial Intelligence (AI) can be a tool that supports the implementation of these principles in a more systematic and adaptive manner. For example, AI-based interactive applications can be used to introduce moral values through educational games that stimulate children's social and moral skills. Educational chatbots can provide personalized guidance and reinforcement of positive behavior, while AI behavior analysis systems allow parents or educators to monitor children's character development, learning habits, and emotional responses in real time. Thus, the integration of AI in postnatal education not only increases the effectiveness of learning but also enables the application of Ibn Qayyim's teachings in an adaptive, personalized, and data-driven manner, so that children's morals and character can be optimally formed from an early age.(Yuniawati & Masliati, 2025)This aligns with Ibn Qayyim's ideas on the importance of moral development, fostering good behavior, and early moral stimulation. Therefore, integrating Ibn Qayyim's classical thinking with modern AI-based innovations can become a new conceptual foundation for postnatal education. AI not only supports cognitive aspects but also serves as a systematic, adaptive, and personalized tool for shaping children's morals and character.

5. Conclusion

According to Ibn Qayyim al-Jauziyyah, child education begins prenatally and continues through postnatally, with an emphasis on physical, psychological, moral, and spiritual development. This principle demonstrates that education must be continuous, from conception through childhood. The development of Artificial Intelligence (AI) in modern education provides opportunities to support these principles. Interactive applications, educational chatbots, adaptive media, and behavioral analysis systems can help parents and educators monitor and stimulate child development in a personalized and systematic manner..

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