

## The Existence of Madrasah Ibtidaiyah Based on *Pesantren*: Challenges and Opportunities in The Digital Era

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Submitted: 02-02-2024

Revised : 22-09-2024

Accepted: 27-11-2024

**ABSTRACT.** This paper explains the process of existence of Islamic boarding school-based Madrasah Ibtidaiyah in the digital era, as Islamic boarding schools are educational institutions with quite impressive historical conditions because Islamic boarding schools can adapt to developments over time and have been proven to be academic institutions that are acceptable across society. This research uses a qualitative case study approach, interview techniques, observation, and documentation to collect data so that data analysis can be carried out. Researchers use Yin data analysis with four patterns, including pattern matching. Second, build clarity/explanation. Third, time series analysis. Fourth is repeated observation and data wetness testing through data triangulation, including methods, sources, and theory. The results of the research show that there are several efforts made by the Ibtidaiyah madrasah based on the Miftahun Ulum Kesamben Wetan Driyorejo Islamic boarding school, namely by strengthening synergy between all parties in the madrasah and outside the madrasah, as well as strengthening several conditions, including First, increasing teacher professionalism. The second is carrying out curriculum development. Third, strengthening student character as stated in the madrasa mission, and fourth, promoting literacy programs to answer challenges in the digital era.

**Keywords:** *Madrasah Ibtidaiyah Based on Pesantren, Digital Era Adaptation, Teacher Professionalism, Curriculum and Character Development.*



<https://doi.org/10.31538/munaddhomah.v5i4.1401>

### How to Cite

Arif, M., Kartiko, A., Rusydi, I., Zamroni, M. A., & Hasan, M. S. The Existence of Madrasah Ibtidaiyah Based on Pesantren: Challenges and Opportunities in The Digital Era. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 5(4), 367–382.

## INTRODUCTION

A nation's advancement and development rely significantly on education as a vital factor in shaping its future. The core of education extends beyond teaching students 'how to know,' 'how to do,' and 'how to live together'; it fundamentally focuses on 'how to be' to facilitate the transmission of cultural values across generations. National education's vision is to serve as a credible social institution, developing high-quality individuals equipped to respond to societal changes (Arif, Aziz, & Abdurakhmonovich, 2024a; Daulay, 2020). Wekke, in his book, explains that education plays a role in preserving, developing, and passing on cultural values to future generations. Education is also expected to adapt to advancements in knowledge and technology, thus acting as an agent of change (Wekke & Farwa, 2018). In Indonesia, the establishment of madrasahs represents a solution to the challenge of transmitting cultural values. These institutions emerged from 20th-century educational reforms as a blend of schools and Islamic boarding

schools. Madrasahs adopt schools' systems, methods, and strategies while integrating the moral and religious teachings of Islamic boarding schools, covering subjects like morals and fiqh (C. Abdullah & Nurlaleli, 2023). As formal educational institutions established within Islamic communities, madrasahs use a classical system across elementary, middle, and high school levels. Their educational approach emphasizes religious studies alongside age-appropriate general knowledge, creating a well-rounded curriculum (M. Afandi, 2021; Akhmadi, 2022).

Islamic boarding schools have a rich and respected history, demonstrating an impressive ability to adapt to changing times and earn acceptance across diverse communities. Beyond this, these schools are expected to act as cultural contributors, fulfilling future societal needs (Arif, Aziz, Harun, & Ma'arif, 2023). As one of the archipelago's original educational institutions, the primary authority within an Islamic boarding school lies with the kyai, who serves as the teacher, owner, and leader (Z. Abidin, 2020; Abubakar, 2018; Adib, 2021). Integration of Islamic boarding schools with madrasahs has become essential in Indonesia. According to Anzar, history records that on January 31, 1946, a Minister of Religion was appointed to oversee and promote Islamic boarding school and madrasah education (A. Abdullah, 2013). The Ministry of Religion's Regulation No. 7 of 1952 outlined the levels of madrasah education: (1) Madrasah Ibtidaiyah (lower level) for six years, (2) Madrasah Tsanawiyah (first advanced level) for three years, and (3) Madrasah Aliyah (upper advanced level) for three years (Urrobingah, Muzaky, Rahayu, & Hidayat, 2024). The Ministry of Religion further expanded by establishing state madrasahs, converting privately managed madrasahs, whether affiliated with public institutions or Islamic boarding schools, into state institutions. For example, Madrasah Ibtidaiyah (MI) became Madrasah Ibtidaiyah Negeri (MIN), Madrasah Tsanawiyah (MTs) became Madrasah Tsanawiyah Negeri (MTsN), and Madrasah Aliyah (MA) became Madrasah Aliyah Negeri (MAN) (Kosim, 2014).

This explanation is supported by research findings documented in various articles. Muhith et al. highlight that students at Islamic boarding schools gain a solid understanding of advances in knowledge and technology while still focusing on moral and character development. These schools serve as centres for intellectual growth, producing individuals who are well-versed in religion, possess strong moral values, and are equipped to meet the challenges of globalization (Muhith, Dwiyono, Munawati, Mustofa, & Haryanto, 2023). Kardi et al. note that Islamic boarding schools have significantly transformed, including the establishment of virtual Islamic boarding schools that address technological challenges (Kardi, Basri, Suhartini, & Meliani, 2023). Research on Islamic boarding school-based madrasahs emphasizes the importance of qualified teachers implementing modern, Industry 4.0-based management practices—from design and organization to evaluation. This enables teachers to think critically, develop advanced mindsets, and respond to contemporary challenges since teachers are fundamental in steering educational progress (Nasser, Trisnamansyah, Mudrikah, & Iriantara, 2022; Prayogi, 2021). Additionally, Muhali stresses the need for teachers to manage learning effectively. In the digital age, teachers are encouraged to create independent learning modules to foster students' critical reasoning (Saye & Brush, 2002), creative thinking (Fatmawati, Zubaidah, Mahanal, & Sutopo, 2019), problem-solving, and collaborative skills. Online learning models are thus recommended as a strategy to prepare students for the digital era (Hakim, Ritonga, Khadijah, & Susanti, 2020; Kamal et al., 2023).

The findings above inspired researchers to explore a unique phenomenon in Kesamben Wetan Village, Driyorejo District, Gresik. Here, Miftahul Ulum Elementary Madrasah has adopted a distinctive Islamic boarding school (pesantren)-based model. A standout feature of this institution is its partnership with nearby Islamic boarding schools, where students must live for a month and fully participate in boarding school activities. Despite the presence of three primary schools in the village (two state elementary schools and one Madrasah Ibtidaiyah), this privately-run madrasah has steadily grown and evolved. Over time, Miftahul Ulum Elementary Madrasah has become a preferred choice for approximately 75% of local students and parents, even leading to the

deactivation of State Elementary School 2 Kesamben Wetan. Since 2016, it has continued to gain popularity as an effective response to digital era challenges.

Observing this development, researchers are motivated to investigate this topic further, focusing on the unique progression of the Miftahul Ulum Islamic Elementary School. This study differs from previous works, such as Siswanto’s research on general Islamic schools with strengths in Islamic boarding school integration (Azra, Afrianty, & Hefner, 2007). Mufiah’s focus on the system used in pesantren-based Islamic schools (Muafiah, 2022). and Habibah et al.’s study on the qualifications of teachers in high school-level Islamic boarding schools. Hasanah et al. emphasized educational development movements (Hasanah, Nonitasari, & Habibah, 2020; Lubis & Rafida, 2019). This research addresses two key questions: (1) How does Miftahul Ulum Kesamben Wetan Driyorejo Islamic Boarding School maintain its presence in the digital era? (2) What challenges does Miftahul Ulum Kesamben Wetan Driyorejo Islamic Boarding School face in sustaining its role in the digital age?.

**METHOD**

This research uses qualitative methods, which, as Denzin and Lincoln explain, involve placing researchers in real-life situations to gain insights. Qualitative researchers observe and interpret their findings through various means, such as field notes, interviews, conversations, photos, recordings, and personal reflections (Creswell & Creswell, 2018). The study adopts a case study approach, which Robert K. Yin describes as focusing on contemporary phenomena within their real-life contexts (Yin, 2018). Specifically, this case study is conducted at Miftahul Ulum Islamic Boarding School in Kesamben Wetan, Gresik. It aims to explore how the school maintains its relevance in the digital age and the challenges it faces in doing so. The research took place over three months, from July to September. Data was collected primarily through interviews with five key informants: the school principal, the head of the foundation, and three exemplary teachers. Details about these interviews can be found in the table below.

**Table. 1** Data Collection Techniques:

No	Data Collection	Techniques	Data Type	Source	Place
	Interview	First, about how it is maintaining its existence in the digital era. Starting from the program and its implementation, the second is about the obstacles experienced by Madrasahs in making changes to Islamic Boarding School-based Madrasahs in the digital era.	Islamic Boarding Madrasah	The head of the madrasah, the head of the educational foundation, two class teachers (exemplary teacher predicate) and one outstanding and creative student at the Miftahul Ulum Islamic Boarding School-Based Elementary Madrasah, Kesamben Wetan Driyorejo Gresik	Office of the Head of Madrasah and Informant’s House
	Documentation	Some processes and results of Islamic boarding school-based Madrasah in maintaining its		All activities at the Miftahul Ulum Islamic Boarding	Madrasah Building Based on

	existence in the digital era. such as the elementary madrasah program and its implementation. In addition, about some obstacles experienced directly by informants	School, Kesamben Wetan Driyorejo Gresik, starting from what has been done, the process and ideas	Miftahul Ulum Islamic Boarding School, Kesamben Wetan Driyorejo Gresik
Observation	The process that is taking place at the Miftahul Ulum Islamic Boarding School in maintaining its existence in the digital era.	The head of the madrasah, the head of the educational foundation, and three class teachers (with the title of exemplary teacher), as well as all teachers and students at the Miftahul Ulum Islamic Boarding School-Based Elementary Madrasah, Kesamben Wetan Driyorejo Gresik	Madrasah Building Based on Miftahul Ulum Islamic Boarding School, Kesamben Wetan Driyorejo Gresik

Meanwhile, in data analysis, researchers use Yin data analysis with four patterns: First, pattern matching. Second, building clarity/explanation. Third, time series analysis. Fourth is repeated observation (Yin, 2011). The data validity test used by researchers is data triangulation, including methods, sources, and theories (Patton, 2015).

## RESULT AND DISCUSSION

### Result

#### The Existence of Madrasah Ibtidaiyah Based On Pesantren In The Digital Era

The interviews conducted at Miftahul Ulum Islamic Boarding School (Pesantren) in Gresik revealed several key steps taken towards renewal. As an institution under the Islamic boarding school model, there is a noticeable challenge in embracing change in the digital era. However, the head of Madrasah Ibtidaiyah shared insights on various changes and updates implemented to address these challenges.

"... Madrasah Ibtidaiyah Miftahul Ulum is focused on modernizing its teaching approach to stay relevant in the digital era. They actively work to develop teachers' skills through training, courses, and partnerships with institutions like Ma'arif NU. In addition to enhancing teacher competencies, the curriculum is updated to include essential digital skills like computer literacy, preparing students for technological advancements. Character education is also a key focus, emphasizing reading habits, literacy activities, and religious values through initiatives that involve parental collaboration. The madrasah principal leads these efforts, with teachers implementing them daily with students. (Sulistiyono: 2024)."



**Figure 1:** Strengthening religious character by commemorating Islamic holidays

In addition to the interviews with the principal, the researcher also spoke with Mrs Umi to confirm the efforts made by Miftahul Ulum Islamic Boarding School to sustain its relevance in the digital era. The findings are as follows:

"...Our institution, especially in elementary madrasahs, has made significant efforts to innovate and advance education. Elementary madrasahs are constantly working to improve, and one way they do this is by prioritizing the recruitment of fresh graduates. These new teachers bring contemporary knowledge and a modern outlook, making them well-equipped to address societal challenges. With everything moving online, our school also aims to keep up by developing our human resources, particularly our teachers. Beyond teacher development, we promote literacy for students by placing books in every corner of the classroom, encouraging them to read regularly. The goal is to prepare students to face future challenges, equipping them with the knowledge and skills to compete in today's world. Reading is especially emphasized, as it opens students' minds and broadens their perspectives. Teachers here are also encouraged to instil a sense of responsibility and care in students. They do this by guiding students in IT-based learning and showing them how to use technology effectively. This is essential, as students may misuse online resources if they are not taught how to navigate them responsibly when completing internet research assignments. (Umi: 2024)"

Mrs. Sulistianah, a class teacher at Miftahul Ulum Islamic Boarding School's Madrasah Ibtidaiyah, gave a similar presentation. She discussed the school's efforts across several key areas, as follows:

"... The madrasah is making significant strides to adapt to the digital era across multiple areas. A primary focus is enhancing educators' knowledge; teachers participate in workshops, seminars, and development programs organized by the principal nearly every 1-2 months. Further studies are encouraged for teachers whose qualifications don't fully align with their subjects. Many of our faculty are young and enthusiastic, motivated to grow in their roles. Besides teacher development, character-building is central to our vision. We believe that academic excellence paired with strong morals prepares students not just for the Industrial Revolution 4.0 era but also for meaningful community roles. To foster literacy, we hold a reading program from Monday to Thursday, aimed at instilling a love of reading with modern

books on topics like technology and natural resources. We also guide students in using current technologies wisely, introducing them to educational resources on platforms like Google and YouTube. Teachers actively support this effort by recommending useful channels and incorporating educational videos into lessons for a more engaging learning experience (Sulistianah: 2024).



**Figure 2:** upgrading knowledge through curriculum development workshops

A similar presentation was also given by Mrs. Fitri, the homeroom teacher for class IV, regarding the efforts made by the Islamic boarding school-based Madrasah Ibtidaiyah to maintain its relevance in the digital era. These efforts include:

"Our institution has implemented several key initiatives: enhancing teacher competencies across pedagogical, professional, social, and personal domains through training, workshops, and other development programs. Madrasah Ibtidaiyah Miftahul Ulum is also updating its curriculum to support government literacy initiatives. We believe literacy is essential for students—it's the gateway to knowledge and a foundation for global development. Moreover, we provide technological literacy education, teaching students how to use the internet effectively. Since the internet is now an integral part of society, we guide students to use it wisely; for example, during lessons on prayer, we show students how to look up relevant hadiths online. Our madrasah aims to build synergy among all stakeholders, including the foundation's leadership and parents. We are also dedicated to strengthening character education, which we view as a vital asset for students in the digital age. Character education is a core element of Miftahul Ulum's vision and mission, helping our students excel academically and embody strong moral values. (Fitri: 2024)."

The researcher sought to triangulate the data by interviewing a sixth-grade student named Wiwik about the efforts made by the Madrasah Ibtidaiyah to maintain its relevance in the digital era. Wiwik shared the following insights:

"...During our year as students, the school and teachers actively promoted the literacy movement. We were given 15-20 minutes before class from Monday to Thursday to read in designated classroom reading areas. In response to the need for technological skills, the madrasah also introduced mandatory computer sessions, where we learned to access positive online resources with guidance from our teachers. Thanks to this, my classmates and I have become proficient in using computers. We were also encouraged to be creative, and I even

won a poetry competition, with my poem published in a children's magazine. The madrasah continues to embrace changes in response to a rapidly advancing world, fostering close collaboration among teachers, students, and parents to maximize learning opportunities."



Figure 3: literacy practice in front of the class to strengthen students' self-confidence

The Madrasah Ibtidaiyah Miftahul Ulum Islamic Based on Pesantren in Gresik is trying to renew and improve the quality of education to maintain its existence in the digital era through synergy between policymakers starting from the head of the madrasah, head of the foundation, teachers, students, and guardians of new students then developing in education lines outside the madrasah, such as the education office, Ma'arif organizational institutions, training institutions, etc. As in the Miftahul Ulum Islamic Boarding School in strengthening synergy, several madrasah breakthroughs have emerged which include four changes to maintain its existence, namely: First, the Miftahul Ulum Islamic boarding school-based Madrasah Ibtidaiyah in Kesamben Wetan Driyorejo is transforming in improving teacher competence. Second, the Miftahul Ulum Islamic boarding school-based elementary madrasah in Kesamben Wetan Driyorejo is developing the curriculum while strengthening digital literacy. Third, what is carried out by the Miftahul Ulum Kesamben Wetan Driyorejo Islamic boarding school-based madrasah Ibtidaiyah is strengthening character education and fourth, what is carried out by the Miftahul Ulum Kesamben Wetan Driyorejo Islamic boarding school-based Madrasah Ibtidaiyah is a school literacy movement program as one of the answers to the challenges of the digital era.

### **Obstacles to Madrasah Ibtidaiyah Based on Pesantren in Maintaining Existence in the Digital Era**

In addition to the efforts made by the Madrasah, there are several obstacles faced by the principals and teachers in maintaining their relevance in the digital era. However, these challenges do not necessarily hinder the Madrasah's development. Instead, they serve as motivation for the institution to improve and work toward its vision and mission. The principal identified several key obstacles, including:

"...During our year as students, the school and teachers actively promoted the literacy movement. We were given 15-20 minutes before class from Monday to Thursday to read in designated classroom reading areas. In response to the need for technological skills, the madrasah also introduced mandatory computer sessions, where we learned to access positive online resources with guidance from our teachers. Thanks to this, my classmates and I have

become proficient in using computers. We were also encouraged to be creative, and I even won a poetry competition, with my poem published in a children's magazine. The madrasah continues to embrace changes in response to a rapidly advancing world, fostering close collaboration among teachers, students, and parents to maximize learning opportunities. (Sulistiyono: 2024)"

As explained by the principal, the management, namely Mrs. Umi, also conveyed the obstacles experienced by the madrasah, especially considering the challenges of the millennial era. Namely:

"...We think that almost 80% of the obstacles have been resolved, such as obstacles related to teachers, now the principal has provided a solution to improve their competence with training, and seminars, and even some teachers are encouraged to take undergraduate courses, as an effort to upgrade their knowledge in welcoming the era of the industrial revolution 4.0. Meanwhile, related to the obstacles to the literacy movement, there is the existence of a reading corner (a place for a collection of books) in each class which we see the need for additional facilities, such as bookshelves, books, and a school library space which will later be expanded. As the principal wants, students can have a hobby of reading. (Umi: 2024)"

The results of the interview with Mrs. Sulistianah also made the researcher consider several obstacles experienced by the Miftahul Ulum Driyorejo Madrasah Ibtidaiyah in the digital era.

"...The obstacle for us teachers is that there are still ups and downs in motivation to learn and develop knowledge. So, it is still very understandable that we only move when the principal does not stop motivating us. Meanwhile, the obstacle related to strengthening character as the mission of the elementary madrasah is more about the environment where students live. Because, God willing, when at school, the teachers are still able to overcome and set an example for students. And the problem of the literacy movement is only related to infrastructure, which needs to be added. (Sulistianah: 2024)"

In line with Mrs. Sulistianah's message, Mrs. Fitri, the homeroom teacher, provided information about the obstacles to developing oneself in the digital era.

"...The obstacle that needs to be fixed is the infrastructure because the literacy movement initiated by the madrasah requires the addition of contemporary books about both lessons and technological developments. The existence of the library as the heart of the school needs to be expanded, and its reference books need to be compacted so that students increasingly like being in the library. For obstacles to strengthening character, perhaps only in the student's residential environment, which is sometimes less supportive. (Fitri: 2024)"

At the Madrasah Ibtidaiyah Miftahul Ulum Islamic Based on Pesantren in Gresik, the obstacles in maintaining existence in the digital era were acknowledged by the school, stating that the main challenge lies in instilling students' character, especially when they are exposed to a less-than-ideal environment. Although most of the obstacles have been overcome, there is still a need to improve facilities, such as reading corners and library space, as well as the addition of more contemporary reading books. In addition, there are fluctuations in motivation among teachers to develop knowledge. Nevertheless, the school remains committed to continuing to innovate to develop students' character and competence.



## **Discussion**

### **The Existence of Madrasah Ibtidaiyah Based On Pesantren In The Digital Era**

The Miftahul Ulum Kesamben Wetan Driyorejo Islamic Boarding School-based Elementary Madrasah is focusing on strengthening collaboration among key players, such as the head of the madrasah, foundation leaders, teachers, students, and parents of new students. This collaboration also extends to educational institutions outside the madrasah, like the education office and training organizations. By fostering this synergy, the Miftahul Ulum Islamic Boarding School aims to transform itself into a competitive and progressive institution that meets the challenges of the digital age. According to Zainuddin et al., effective educational synergy management is essential for school leadership, which can lead to better governance and optimize resources (Bierly, Rogers, & Snider, 2005; Zainuddin, 2019). At Madrasah Ibtidaiyah Miftahul Ulum, several innovative changes have been introduced to ensure its ongoing success.

First, the Miftahul Ulum Kesamben Wetan Driyorejo Islamic Boarding School has made significant changes to enhance teacher competency. Teachers play a crucial role in education, especially in the digital age, as they can effectively bridge the gap between digital demands and real-world situations. (Laura, 2016; Purwantiningsih, 2019). Several improvements began through training (Roeser, Skinner, Beers, & Jennings, 2012), seminars (Arifin, Rofiq, & Aliani, 2022; Saadah & Asy'ari, 2022; Spruijt et al., 2013), IT-based learning workshops (Putra, Rahmawati, Islamiati, & Ardiansyah, 2024). Additionally, the school offers teacher coaching and encourages educators to pursue at least a bachelor's degree in their areas of expertise, especially for those whose qualifications are not aligned with their teaching subjects. Acevedo-Duque et al. emphasize that in the digital era, teachers must stay updated with technological advancements. They play four essential roles in education: implementers, developers, aligners, and researchers. These roles are enhanced through ongoing training and workshops to help them meet the challenges of the Industrial Revolution 4.0. (Acevedo-Duque, 2020; Aditya, Andriyiah, Ismiatun, Atika, & Permadi, 2022; Syam, 2019), as well as a role in maintaining quality in schools that depend on professional teachers (Adiyono, Fadhilatunnisa, Rahmat, & Munawarroh, 2022). According to H.A.R. Tilaar, a teacher in the 21st century should excel in three key areas: a solid understanding of science and technology, the ability to engage students and spark their interest in learning, and maintaining a stable yet evolving personality. These three aspects are crucial as they are rapidly changing in today's world (Tilaar, 1992, 1998).

Second, the Miftahul Ulum Kesamben Wetan Driyorejo Islamic Boarding School-based elementary madrasah is developing the curriculum (D. Abidin et al., 2023). This includes providing additional computer classes for students, led by teachers who are experts in technology. Furthermore, the madrasah aims to enhance digital literacy. Suwanto et al. emphasize that improving digital literacy in schools must be closely integrated with Information and Communication Technology (ICT) learning (Maghfiroh et al., 2024; Musslifah, Tjahjono, Khilmayah, & Suud, 2024; Suwanto, Setiawan, & Machmiah, 2022), because both are integrated learning so that they can answer challenges in the digital era (Lestari, Siskandar, & Rahmawati, 2020). However, effective implementation requires that curriculum development serves as the primary foundation. Alhamuddin et al. explain that curriculum development can significantly influence structural changes, including several key components. These components involve adjustments to goals and societal perspectives, particularly in response to the demands of the digital age. Additionally, it includes modifications to the curriculum's content and structure, strategies for achieving educational objectives, and improvements to curriculum facilities, such as teaching methods, learning models, and evaluation systems (Alhamuddin, Fanani, Yasin, & Murniati, 2020; Erstad, Kjällander, & Järvelä, 2021). As Lase explains, curriculum development should focus on enhancing students' abilities and promoting independent learning, encouraging them to "continue to learn on their own" (Zimmerman, 1994) all institutions must understand this goal because how curriculum is designed

is not only about the amount of material but further than that is how the curriculum can reach the experiences of students (S. W. R. Nasution, Nasution, & Fauzi, 2022).

Third, the Miftahul Ulum Kesamben Wetan Driyorejo Islamic Boarding School focuses on strengthening character education. In today's world, where technology and bullying are prevalent, the importance of character education is increasingly at risk. Arif et al. emphasize that enhancing character education in schools is essential, especially given the rise in bullying incidents and declining student morals (Arif, Aziz, & Abdurakhmonovich, 2024b; Azizah & Mardiana, 2024). Similarly, Muzayaroh et al. assert that character education should involve all school stakeholders, including administrators, teachers, and students. The components of this education encompass the curriculum, learning and evaluation processes, classroom management, school administration, improvements in facilities and infrastructure, and the work ethic of everyone within the school community (Muzayaroh, 2021). In this way, character education can be carried out and run through three stages, namely: "knowing the good, desiring the good, and doing the good (Lickona, 1991, 1999).

Fourth, the Miftahul Ulum Kesamben Wetan Driyorejo Islamic Boarding School is strengthening its school literacy movement program as a response to the challenges of the digital era. This literacy initiative is implemented from Monday to Thursday, starting each morning for 15-20 minutes before classes begin. Marleni et al. highlight that the literacy movement is crucial for helping students develop critical thinking skills. (Marleni, Mustoip, & Sulkhah, 2024; Prasetia & Adlan, 2022), be technologically literate (Cummins, 2008; Nes et al., 2021; Triana, Gusdorf, Shah, & Horst, 2020), be information literate (Jones-Jang, Mortensen, & Liu, 2021; Lacey, 2022; Morris, 2020), and have sensitivity to the surrounding conditions. (Mardliyah, 2019). Based on these conditions, it is confirmed that the literacy movement for elementary schools is an initial breakthrough to become a school culture.

The existence process carried out by the Miftahul Ulum Kesamben Wetan Islamic Boarding School-based Elementary Madrasah is in line with what was expressed by Talcott Parsons about the system of maintaining existence through "AGIL" Adaptation (A), Goal Attainment (G), Integration (I), Latency (L) (Camou, 2023; Parsons, 1978; Raho, 2021, p. 72; Turner, 1993). However, what makes the difference in the latency process is that elementary madrasahs strengthen habits to become a culture (habits to create a new culture) "AGIH" Adaptation (A), Goal Attainment (G), Integration (I), and Habit (H), which in implementation starts from Adaptation (A): Elementary Madrasahs adapt to the digitalization era by strengthening synergy between policymakers starting from the head of the madrasah, head of the foundation, teachers, students and guardians of new students then developing in educational lines outside the madrasah, such as the education office, Ma'arif organizational institutions, training institutions. Goal Attainment (G): achievement of goals as motivation in achieving the formulation, vision, and mission that the madrasah has set, namely prioritizing the quality of teachers and students in the fields of science and technology, Integration (I): Integration as a link between ongoing adaptation and goals as an integrated whole without any weakening process, as adaptation through synergy with policymakers can be in line with the goals of the madrasah, namely prioritizing the quality of teachers and students in the fields of science and technology. And Habit (H): one of the processes of strengthening habits that have been carried out at the Miftahul Ulum Kesamben Wetan Islamic Boarding School-based Elementary Madrasah through teacher strengthening, curriculum development, character education, and strengthening literacy in teachers, students, and the school community.

## **Obstacles to Madrasah Ibtidaiyah Based on Pesantren in Maintaining Existence in the Digital Era**

As the Islamic elementary school affiliated with the Miftahul Ulum Kesamben Wetan Islamic Boarding School works to maintain its presence in the digital era, it faces several challenges. First, there are issues related to facilities and infrastructure. The school is limited by the need for further development, particularly in expanding the library and updating its collection of reading materials to engage students' interest in reading. Improving, adding, and optimizing the use of facilities and infrastructure are essential keys to addressing these challenges. (Lifiya, 2021; N. A. Nasution & Marpaung, 2023). This aligns with Bararah et al., who emphasize the importance of managing facilities and infrastructure to enhance the quality of learning. This includes effective planning, duplication, and utilization based on a thorough needs analysis. (Bararah, 2020; Suranto, Annur, Ibrahim, & Alfiyanto, 2022).

Another challenge is the fluctuating motivation levels among teachers in their efforts to enhance professionalism. Both intrinsic and extrinsic motivation influences this variation. As Ena and Hidayati explain, motivation can be categorized into two types: intrinsic motivation, which originates from within the individual and does not require external stimulation, as it is inherently personal. (Ena & Djami, 2021). On the other hand, extrinsic motivation arises from external influences, such as encouragement, directives, or even coercion. In this context, the principal plays a crucial role in fostering motivation by building strong relationships with teachers, both directly and indirectly. (Hidayati & Ermiyanto, 2017). This approach helps encourage teachers and positively impacts their intrinsic motivation. Additionally, the diverse living environments of students can sometimes hinder the development of strong character values. Therefore, madrasahs must work to gradually and sustainably cultivate a culture of character development among students (I. Afandi & Juanda, 2020).

## **CONCLUSION**

In short, Madrasah Ibtidaiyah Miftahul Ulum is renewing and improving the quality of education to maintain its existence in the digital era through synergy between policymakers, so several madrasah breakthroughs have emerged, including four changes to maintain existence. First, transformation is carried out to improve teacher competence. Second, developing the curriculum. Third, strengthening character education, and fourth, strengthening the school literacy movement program as one of the answers to the challenges of the digital era. However, there are several obstacles in the process, such as facilities and infrastructure, the ups and downs of teacher motivation in improving teacher professionalism, and a diverse student living environment that sometimes does not support the formation of noble character.

Based on the conclusions above, the theoretical implications of this study are that the process of maintaining existence carried out by Madrasah Ibtidaiyah Miftahul Ulum is in line with what was expressed by Talcott Parson about the AGIL theory. However, there is a difference in the last stage, namely latency (L), in the field findings using AGIH: Adaptation (A), Goal Attainment (G), Integration (I), and Habit (H) as options in the process of maintaining the existence of elementary madrasahs in the digital era. However, this study still has weaknesses because it only takes one research object at the elementary school level. Thus, suggestions for future research can be carried out in-depth with more objects (multi-sites) and higher levels (high schools or colleges).

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