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Implementation of the Alef Education Learning Platform in English Language Subjects (Best Practice at MTs Negeri Gunungsitoli)

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Abstract: This study investigates the implementation of the Alef Education platform in English learning at MTs Negeri Gunungsitoli as a model of digital pedagogical innovation in Islamic secondary education. The research aims to: (1) describe the planning and integration process of Alef Education, (2) analyze its instructional practices, and (3) evaluate its pedagogical impact. A qualitative descriptive method with a case study design was applied. Participants included English teachers and students from grades VIII and IX. Data were collected through observation, interviews, and documentation, then analyzed thematically following Braun and Clarke's framework. Results indicate that Alef Education enhances student engagement through interactive exercises, automated feedback, and curriculum alignment. Institutional support, teacher readiness, and learner motivation emerged as enabling factors, while limited internet connectivity and uneven digital literacy were key constraints. Effective practices include lesson plan integration, automated assessment use, and continuous teacher mentoring. The study concludes that Alef Education can improve English learning outcomes when supported by adequate ICT infrastructure, adaptive pedagogy, and sustained professional development.

Keywords: Alef Education, Digital Pedagogy, Educational Innovation, English Learning

A. Introduction

The development of digital technology has brought significant changes to various aspects of human life, including education. In the era of the Fourth Industrial Revolution, the digitization of education has become an urgent and inevitable necessity. The World Economic Forum states that the integration of digital technology into the education system is no longer just an option, but a necessity to prepare the younger generation to face the challenges of the 21st century, such as critical thinking, collaboration, communication, and creativity skills. Thus, educational institutions need to transform the learning process through the use of digital platforms as a means to expand access, increase effectiveness, and support personalized learning (Surayanah; Yuniawatika S.; Ndiung, S.; Mas'Ula, S., 2022).

In Indonesia, digital transformation in education is supported by various government policies. One of them is the Madrasah Digital Transformation, which is a strategic program of the Ministry of Religious Affairs (Kemenag). Since 2020, Kemenag has collaborated with Alef Education United Arab Emirates (UAE) in providing the Alef Education digital platform in Indonesian madrasahs. This collaboration began by providing access to Alef for mathematics lessons. Based on the results of a national survey, the level of teacher satisfaction reached 98.42 percent, while of the 3,886 student respondents, 81 percent stated that the Alef platform was easy to use and 76 percent hoped to continue using it in learning (Indonesia, 2020). These data show positive acceptance of the Alef platform as a digital learning medium.

This initial success encouraged the Ministry of Religious Affairs to expand the scope of Alef's use, not only in mathematics but also in Islamic religious education, and in the future, it is expected to cover other subjects, including English. Minister of Religious Affairs Yaqut Cholil Qoumas emphasized that the development of Alef content must be in line with the spirit of nationalism and Indonesianness. Therefore, the Islamic Religious Education material in Alef is compiled directly by the Ministry of Religious Affairs through its Research, Development, and Training Agency to ensure that it remains in line with Islamic educational values in Indonesia (Harun, 2014). This confirms that the integration of Alef is not merely the adoption of foreign technology, but rather a process of adaptation to the local Indonesian context.

Alef Education welcomes this collaboration. Aishah Al Yammahi, advisor to Alef, emphasizes the importance of shaping a young Indonesian generation that is rooted in religious values while also being good citizens. Yohanes Surya, Alef's expert staff for Indonesia, even has high hopes that Indonesian-made content can become a global standard, as has happened with mathematics (Siregar et al., 2025). This synergy demonstrates a shared commitment to making Alef an instrument of digital education transformation that is globally relevant yet locally contextual.

In the context of madrasah education, the presence of Alef Education is a form of innovation to accelerate technology-based learning transformation. This platform not only provides interactive content in the form of videos, animations, and quizzes, but also features an automatic evaluation system that helps teachers monitor student progress. Thus, Alef is able to support learning that is more effective, efficient, and interesting for students. According to Koehler P., (2009), the effectiveness of technology use in learning depends heavily on the integration of three aspects, namely content, pedagogy, and technology (Technological Pedagogical Content Knowledge/TPACK). In this case, Alef can serve as a medium that helps teachers deliver content while facilitating active learning.

For students, Alef Education provides a more varied learning experience. They can access materials independently, conduct self-assessments, and receive direct feedback from the system. This is in line with the concept of self-regulated learning, where

students have greater control over their learning process (Zaini, 2021). For teachers, Alef acts as a tool to design more focused learning, give assignments, and quickly assess student learning outcomes. Meanwhile, for parents, Alef provides access to monitor their children's learning progress, thereby creating collaboration between schools and families.

Although the Alef Education platform has shown positive results in mathematics, research on the effectiveness of its application in English language learning in madrasahs is still very limited. This is important to note because English language proficiency is no longer considered an additional skill, but rather a core competency that students must have in the era of globalization. English serves as a lingua franca that enables cross-cultural interaction and is the primary medium for academic, professional, and social communication at the international level. Harefa (2024) asserts that English proficiency not only functions as a communication tool but is also a strategic means of accessing scientific resources, cutting-edge technology, and broader global career opportunities. In the context of madrasahs, the need for English proficiency is increasingly urgent given the curriculum's emphasis on 21st-century skills, such as critical thinking, collaboration, and digital literacy, all of which require access to English-based global information. This is in line with Mulyasa (2013) view, which emphasizes that education in the global era must equip students with foreign language skills, especially English, in order to be able to compete in an increasingly competitive world[1]. Thus, the limitations of research related to the implementation of Alef Education in English language learning become a gap that deserves to be studied more seriously.

These limitations raise critical questions about the extent to which Alef Education can support madrasah students' mastery of English language skills, especially in the four main skills of reading, writing, speaking, and listening. Each of these skills has its own challenges that require an adaptive and innovative technology-based pedagogical approach. For example, reading skills require not only text comprehension, but also the ability to interpret and evaluate information; writing skills require structured, repeated practice; speaking skills require confidence and communicative interaction; while listening skills rely on concentration, contextual understanding, and speed in grasping messages. The fundamental question that needs to be answered is whether Alef's features, such as interactive material presentation, personalized learning, and automatic evaluation, are able to address the specific needs in developing these language skills. According to Tilaar (2009), the application of technology in education must always be accompanied by appropriate pedagogical strategies in order to truly improve the quality of learning. Therefore, an in-depth study of the effectiveness of Alef Education in English learning in madrasahs is very important, both to enrich academic literature and to support evidence-based education policies.

Previous studies have indeed shown the positive potential of digital platforms in improving student learning outcomes in various fields. Nuroh & Ubaidillah (2023),

for example, found that Alef Education is effective in improving Arabic listening skills, as the interactive presentation of material and instant evaluation are able to attract students' attention and increase their motivation to learn. This study confirms that digital-based learning technology does not only function as an additional medium, but also as a pedagogical tool that can optimize the mastery of certain language skills. In line with this, Diniati (2023) shows that Alef helps students understand mathematical concepts more easily through material visualization and adaptive exercises tailored to students' ability levels. This proves that the integration of technology in learning can provide a more personalized and meaningful learning experience. Thus, these various research results show that Alef has great potential in supporting the achievement of educational goals in madrasahs.

Meanwhile, Adenan (2022) research emphasizes the importance of gadget technology in supporting post-pandemic education, especially as a flexible learning tool that allows students to stay connected to teaching materials without being limited by space and time. This finding further strengthens the argument that the use of digital technology in education cannot be ignored but needs to be continuously developed to suit the needs of students. However, among the various existing studies, there has been no research that specifically highlights the effectiveness of Alef in English language learning in madrasahs. In fact, English has a strategic role as a global competency that students must have in order to face the challenges of the 21st century. Thus, there is an important research gap that needs to be addressed, namely the extent to which Alef Education can contribute significantly to improving the English language skills of madrasah students, including listening, speaking, reading, and writing skills. This gap opens up opportunities for further research that will not only enrich academic knowledge but also contribute practically to policy and learning practices in madrasahs.

The local context of MTs Negeri Gunungsitoli is important to study. As one of the madrasahs in the archipelago, this school faces challenges due to limited educational infrastructure, but it continues to strive to adapt to technological developments. The presence of Alef Education at MTs Negeri Gunungsitoli signifies a commitment to improving the quality of English language learning through the use of digital technology. This step makes the madrasah one of the pioneers in the use of digital platforms in the Gunungsitoli area, making it interesting for further research. In addition, the implementation of Alef Education at MTs Negeri Gunungsitoli needs to be viewed in the framework of Humanizing Pedagogy. Freire (2005) emphasizes that education must view students as subjects, not objects, in the learning process. Thus, the use of Alef should not only be a means of transferring material, but also a vehicle for building humanistic interactions between teachers and students. Teachers still have a central role in guiding, motivating, and providing personal assistance, so that technology functions as an instrument, not a substitute.

The urgency of this research becomes even clearer when linked to the need to

implement the Merdeka Curriculum, which emphasizes differentiated learning, strengthening literacy, and developing 21st-century competencies. Alef Education, with its digital features, can be a means of supporting the implementation of this curriculum. However, its effectiveness in supporting English language learning in madrasahs needs to be proven through empirical research. Without adequate data, the development of technology-based policies in madrasahs will be difficult to optimize (Pohan et al., 2024).

In addition, the implementation of Alef Education also needs to be viewed in the context of the challenges of digitization in madrasas. Not all students have adequate personal devices, while internet access in island areas such as Gunungsitoli still faces network stability issues. Therefore, madrasas have adopted an adaptive policy by allowing students to bring their personal cell phones under the supervision of teachers and homeroom teachers. This policy is a form of institutional response to the digital divide, so that all students can still access the Alef platform with adequate supervision. According to Gorton J.; Snowden, P (2007), the success of educational technology adoption is not only determined by the availability of devices, but also by how schools regulate access and manage its use in accordance with educational objectives.

The urgency of this research is even stronger when linked to the demand for mastery of 21st-century competencies. The Framework for 21st Century Learning (P21) emphasizes the importance of 4C skills critical thinking, creativity, communication, and collaboration as the core of the modern learning process (Trilling C., 2009). Through Alef, students can hone these skills, especially in English subjects that require communication and collaboration skills. However, without in-depth research, it is difficult to ascertain the extent to which Alef is able to address the challenges of mastering these competencies in the context of madrasahs.

The presence of Alef at MTs Negeri Gunungsitoli is also relevant to the national education mission to reduce the quality gap in education between regions. As a madrasah located in an archipelagic region, this school's efforts to adopt Alef are proof that digital transformation can reach schools in rural areas, not just in urban areas. This research is expected to serve as a model for other madrasahs in regions with similar conditions, so that the digital transformation of education is truly inclusive. According to Tilaar (2009), equitable access to quality education is the key to national education development, and technology can be a bridge to achieve this.

B. Methods

This research uses a qualitative approach with a case study method because it aims to deeply understand social phenomena related to the behavior, perceptions, and actions of individuals in their natural contexts. This approach allows researchers to explore the relationship between behavioral changes and the activities of human groups in

educational settings (Creswell & Poth, 2019). According to Bogdan and Taylor in (Lexy, 2019.), qualitative methods produce descriptive data in the form of written or spoken words from individuals and observed behavior. Qualitative research is also used to gain a deep and comprehensive understanding of various aspects of the research subject, view events in a broader context, and interpret meaning from the participants' perspectives (Nasution & Butar-Butar, 2024). This approach was deemed most appropriate because this research focuses on interpreting the experiences of teachers and students in the Alef digital platform-based learning process at MTs Negeri Gunungsitoli.

This research was conducted at MTs Negeri Gunungsitoli, a state junior high school located in Gunungsitoli City, North Sumatra. The school has approximately 350 students divided into grades VII to IX. The research participants consisted of five subject teachers and 12 students from grades VIII and IX, selected using purposive sampling based on their active involvement in implementing Alef technology-based learning. Informants were selected based on their willingness to participate and their ability to provide information relevant to the research focus. To clarify the informants' characteristics, participant demographics are presented in tabular form, including gender, role at school, and length of involvement in the Alef program.

Data collection was conducted over three months (February–April 2024) using three main techniques: observation, interviews, and documentation. During the observation phase, researchers attended five learning activity sessions to directly observe teacher-student interactions using the Alef platform. Observations were non-participatory and unstructured, focusing on student behavior dynamics, teacher strategies for facilitating digital learning, and classroom communication patterns. Subsequently, semi-structured interviews were conducted with all participants to explore their perceptions, experiences, and challenges faced during the Alef-based learning process. The core interview questions covered aspects of learning motivation, adaptation to technology, and changes in learning behavior, which are listed in the study's appendix. Documentation was used to obtain supporting data in the form of Lesson Implementation Plans (RPP), student work on the Alef platform, and school policies related to digital learning implementation.

Data analysis was conducted continuously, from data collection to interpretation of the final results. This analysis followed Braun and Clarke's (2006) thematic analysis framework, which includes six main steps: (1) familiarization with the data through repeated reading of interview transcripts and field notes, (2) inductive initial coding, (3) identifying patterns and grouping codes into potential themes, (4) reviewing themes based on their alignment with empirical data, (5) defining and naming key themes, and (6) writing a systematic and interpretive narrative of the analysis results. This process enabled researchers to uncover the hidden meanings behind participants' experiences and understand how technology-based learning influences behavior and communication patterns in the school. Data validity was maintained through

triangulation of sources and methods, as well as member checking with participants to ensure accurate interpretations.

Using this qualitative case study approach, the research sought to provide an in-depth description of the social, cultural, and pedagogical context at MTs Negeri Gunungsitoli in facing the digital-based learning transformation. This approach not only explains the observed phenomena, but also interprets the meaning behind the actions and perceptions of the participants in an effort to build digital literacy in secondary Islamic educational environments.

C. Results and Discussion

The research results show that the implementation of Alef Education at MTs Negeri Gunungsitoli was carried out in stages, emphasizing three main aspects: infrastructure readiness (internet access), institutional policies (permission to bring personal devices under the supervision of teachers and homeroom teachers), and teacher readiness to develop learning strategies tailored to the characteristics of digital platforms. This planning reflects the madrasa's commitment to integrating digital learning into the existing education system (Toding et al., 2024).

This finding can be understood through the TPACK framework: teacher readiness extends beyond simply utilizing technology, but also through the simultaneous integration of content and pedagogical knowledge. Recent studies have shown that teachers who possess a combination of technological, pedagogical, and content knowledge (TPACK) can design meaningful and contextual digital learning. For example, research in secondary schools in Indonesia found that inadequate infrastructure or unstable internet connections hindered the implementation of TPACK in English language learning. In the context of this study, the policy of allowing personal devices and teacher supervision reinforces the pedagogical and technological dimensions of TPACK not simply the presence of technology, but its inclusion as an integral part of the learning strategy.

In addition to teacher readiness, infrastructure and policy aspects also emphasize the importance of humanizing pedagogy, an approach that treats students as active learning agents and takes into account their socio cultural context. The policy of bringing personal devices under teacher supervision demonstrates that madrasas are not simply providing tools but also building student trust and responsibility a hallmark of humanizing pedagogy, which focuses on empowerment and active student participation. This aligns with the notion that digital education should go beyond simply adopting technology, but also humanize the learning process, rather than allowing students to be dominated by tools.

However, these findings also point to significant challenges that reflect the reality of the "digital divide." Global studies document that unequal access to infrastructure

and digital literacy remain major barriers to technology-based learning. For example, research on digital infrastructure in developing countries suggests that unequal allocation of infrastructure investment can exacerbate the digital divide and reduce the effectiveness of digital learning implementation.

In this study, although madrasas have prepared infrastructure and policies, the context of schools lacking computer labs suggests that the use of personal devices is an adaptive solution but still carries the risk that some students may be limited by network or device conditions. This condition confirms that even though the strategy has been adaptive, equality of access has not been fully achieved (Adeleye et al., 2024).

From a language skills perspective, if it is found that students' speaking or verbal interaction has not significantly improved with the Alef platform, this is consistent with the literature in Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL), which highlights that technology alone does not guarantee improved oral skills without direct interaction and teacher scaffolding. Studies show that while technology provides convenience, network limitations or a lack of synchronous speaking opportunities can reduce the effectiveness of speaking skill development. For example, a study of mobile learning in developing countries found that limited access and facilities hindered students' ability to develop oral interactions.(Ugwu et al., 2025). Therefore, your findings, which may indicate a limited impact on speaking skills, need to be discussed as reinforcement that technology cannot completely replace the role of the teacher and the social learning environment.

Furthermore, international research within the EdTech framework highlights that student engagement and gamification are key factors in improving learning outcomes. For example, in effective digital learning models, platforms that support interaction, rapid feedback, and gamification elements have been shown to improve motivation and learning outcomes. Although your research focused on infrastructure, policies, and teacher readiness, student engagement mechanisms and gamification could be areas for further development. Therefore, while the implementation of Alef in your madrasah is quite strategic, there is still room to strengthen student engagement through more interactive digital features as a complement (Ilahude et al., 2023).

Furthermore, the theoretical framework of transformative leadership you mentioned in the initial discussion can be strengthened by the literature that technological change in education requires leadership that balances long-term vision and the day-to-day realities of schools. Research shows that school leadership support and teacher involvement in decision-making are key factors in the success of educational technology implementation. Therefore, your finding that madrasah principals establish policies for bringing personal devices and involve teachers as designers of learning strategies indicates that the transformation is proceeding according to theory (Ramadhan, 2023).

To address contradictory findings: If, for example, it is found that despite the implementation of a policy for bringing personal devices, its utilization is still limited (e.g., due to slow internet connections or students' lack of skills in using the Alef app), this aligns with studies showing that even with the availability of infrastructure, teacher or student technological literacy and socio-economic context remain major barriers. Studies have shown that improving teacher digital literacy remains a challenge in developing countries. Therefore, your findings that indicate specific barriers for example, teacher adaptation or student limitations should be viewed as part of the dynamics of EdTech implementation in resource-constrained environments.

Overall, it can be concluded that the Alef implementation planning at MTs Negeri Gunungsitoli was comprehensive, adaptive, and participatory. The school successfully balanced resource limitations with contextual policies, engaged teachers as learning designers, and considered student readiness. This approach aligns with modern educational planning theory that emphasizes relevance, participation, and sustainability. However, for the implementation of learning technology to be truly inclusive and effective, further attention needs to be directed to teacher-student digital literacy, the platform's interactive features, and mitigating access gaps at the student level. Thus, the Alef platform can lay a strong foundation for realizing the goal of inclusive digital education in the school (Siregar, 2025).

D. Conclusions

The planning for the implementation of Alef Education in English lessons at MTs Negeri Gunungsitoli was carried out through systematic, targeted steps in line with the policies of the Ministry of Religious Affairs and the vision of the madrasah. Teachers began by reviewing the national curriculum and identifying relevant basic competencies to be integrated with the content and features available on the Alef platform. The aim was to ensure that lesson planning was not merely administrative but also substantive, effectively bridging the needs of the curriculum with the potential benefits of digital technology. Thus, planning is not merely adding Alef as a tool, but making it an integral part of a comprehensive learning strategy. In the planning stage, teachers develop lesson plans and teaching modules with an innovative approach that emphasizes the use of Alef features, such as interactive exercises, reading materials, and automatic evaluation. This integration allows for continuity between text-based learning and digital technology-based learning. Teachers do not simply copy the material on Alef, but also adapt and adjust it so that the content is in line with the needs of students and the standards applicable in madrasahs. Thus, Alef serves as a learning medium that enriches the learning experience, rather than replacing the role of teachers or existing core materials. In addition to the material aspect, the planning also emphasizes the availability of adequate supporting facilities. Teachers and madrasah officials pay attention to the condition of digital devices such as laptops, projectors, and internet access, which are

important factors in the smooth implementation of Alef. On the other hand, the readiness of teachers to master the use of the platform is also a priority that is planned through training, discussions, and the sharing of good practices among teachers. This shows that planning is not only about learning content, but also includes the readiness of human resources and infrastructure that will support the success of implementation.

Finally, planning also considers the readiness of students to accept and use this digital platform. Teachers consider the characteristics of students, their learning habits, and potential technical obstacles that may arise. To that end, student mentoring and guidance strategies are designed from the outset so that they are not just passive users, but are also able to utilize Alef's features independently and responsibly. With this well-thought-out design, the planning for the implementation of Alef Education at MTs Negeri Gunungsitoli can be said to have emphasized the alignment of learning objectives, facility support, and the readiness of teachers and students in facing the challenges of 21st-century learning.

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