

Implementation of The Educational Mobile Application (AME) in The PHBS Program At The Al-Itqon Islamic Boarding School In Semarang, Indonesia

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Abstract. Education and implementation of Clean and Healthy Living Behaviors (PHBS) are essential to enhance awareness and hygiene practices within Boarding School environments. PHBS education encompasses personal hygiene, waste management, use of sanitation facilities, and healthy eating habits. This community activity aims to improve students' awareness of the importance of healthy lifestyle behaviors using an educational mobile application (AME). The activity will take place from June 18, 2025, to July 18, 2025, at the Al-Itqon Bugen Islamic Boarding School in Semarang, Indonesia. The community service activity includes preparation, socialization, implementation, monitoring, and evaluation. In the learning process, a technology-based educational approach with gamification is used, which integrates game elements into the educational process using digital technology, packaged in the AME. The results of the activity show that 86% of students are categorized as moderate to high in terms of increased use of digital technology. The results of this activity can be concluded that AME technology in the implementation of PHBS can function as an effective strategy to encourage students to maintain personal hygiene and environmental cleanliness.

Keywords: Educational Mobile Application (AME); PHBS; Islamic Boarding Schools.

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INTRODUCTION

Islamic Boarding Schools are the oldest religious educational institutions that existed before the emergence of formal educational institutions in Indonesia (Muhammad et al., 2023). Islamic Boarding Schools are considered a subculture, a social community with a distinctive culture. The uniqueness of Islamic Boarding Schools is characterized by several factors: first, the independent leadership structure of the Boarding School, which is not co-opted by the state. Second, the reference texts studied are classical works known as "kitab kuning." Lastly, the value system adopted by the Boarding School (Qomariyah & Darwis, 2023).

There are two types of Islamic Boarding Schools: traditional and modern. Traditional Islamic Boarding Schools are identified as teaching religious values using traditional approaches and methods, and are known as Salaf or Salafiyah Islamic Boarding Schools (Shulhan, 2021). Salafiyah Islamic Boarding Schools are

Islamic Boarding Schools that teach the Al-Qur'an and Islamic religious sciences, where educational activities and teaching can be carried out in a non-classical or classical manner (Nurdin & Samudi, 2023).

Students at traditional Islamic Boarding Schools need to be equipped with knowledge about AME, educational mobile application technology, particularly in relation to clean and healthy living (PHBS), as a means of adapting to the changing times and improving quality of life (Wardani et al., 2023). The use of this technology can serve as an effective tool to reinforce students' understanding of the importance of maintaining personal hygiene, environmental cleanliness, and healthy living habits in their daily lives, without neglecting the traditional values of the Boarding School (Nurfatiah et al., 2022).

With interactive and easily accessible educational applications via mobile devices, students can learn independently and continuously, so that clean and healthy living behaviors become part of their culture, both within

the Boarding School environment and in their community life.

This training activity is one of the activities under the Tri Dharma of Higher Education aimed program aimed at enhancing digital literacy in the implementation of PHBS among students at Pondok Pesantren Al-Itqon Bugen Semarang. It is hoped that this activity will mark the beginning of collaboration between Pondok Pesantren Al-Itqon and Semarang State University in fostering a generation of students who are digitally literate and aware of PHBS.

METHODS

The methods used in this community service activity include preparation, socialization, implementation, monitoring, and evaluation (Bakri et al., 2024).

- 1) Preparation, this activity began with obtaining permits and continued with coordination with the head of the Al-Itqon Bugen Islamic Boarding School in Semarang.
- 2) Socialization, socialization was carried out to explain the program activities that would be carried out by the community service team.
- 3) Implementation, in the clean and healthy living education (PHBS) activities at Islamic Boarding Schools, the Mobile Education Application (AME) method will be used. This application can be accessed by students via their mobile phones. In learning, a technology-based educational approach with gamification is used, which is learning that integrates game elements into the educational process using digital technology. This implementation phase includes Presentations and Q&A, this method is used for presenting materials, including PHBS content, and; Training/Workshops, in this activity, students are guided in creating the AME application by experts. During the training, students are divided into three groups, each accompanied by a team of mentors; mentoring is conducted by teachers during each learning session. Through mentoring, it is hoped that students will consistently implement the PHBS program (Resnayati et al., 2023).
- 4) Monitoring and Evaluation, monitoring is conducted once a week on Sunday mornings. Reflection and discussion: At the end of the session, a reflection meeting is held with the students and the head of the Boarding School to evaluate the experience, discuss the challenges faced, and gather suggestions for

improvement. Follow-up recommendations: Suggestions are recommended for further training activities related to digital literacy and the continuity of the PHBS application in the daily lives of the students at the Boarding School.

Evaluation is conducted to determine the extent of the success of this activity. Evaluation is conducted in three stages: before, during, and after the community service activity.

RESULTS AND DISCUSSION

Islamic Boarding Schools are indigenous Indonesian educational institutions that have survived to this day as a result of cultural acculturation (Herningrum *et al.*, 2020). Research conducted by experts has brought Islamic Boarding Schools to the attention of various groups, who recognize their contribution to theoretical and practical thinking. This research has also revealed that Islamic Boarding Schools have undergone changes in terms of their social, cultural, political, and educational systems.

The public's perspective on Islamic Boarding Schools in general is divided into two categories: traditional and modern. Traditional Islamic Boarding Schools are Islamic educational institutions that maintain the traditional system by rejecting advances in science and technology. Modern Islamic Boarding Schools are those that have utilized advances in science and technology to assist in the educational process at the Boarding School, whether it be for educators, students, the curriculum, or infrastructure (Fuad & Iswantir, 2024). The development of Islamic Boarding Schools makes them an intriguing subject for further exploration, particularly by understanding the dynamics of traditional and modern Boarding Schools, all of which have undergone changes in adapting to an increasingly globalized era. The significant influence of Islamic Boarding Schools in this era of globalization has become an opinion regarding the advancement of the education system in Indonesia and must be internalized in every existing Islamic Boarding School, including the Al-Itqon Islamic Boarding School in Bugen, Semarang.

The training activity was held on Sunday, June 15, 2025, beginning with an opening ceremony, followed by a speech from the Head of Community Service Activities, Prof. Dr. Lisdiana, M.Si, and a speech from the Boarding School, represented by the Head of the Boarding School, Mr. Hadani Abdurrohman. The main event began

with a presentation on PHBS by Dr. Ngurah Made Dharma Putra, M.Si.

Implementation of Clean and Healthy Lifestyle (PHBS) Socialization among Santri cadres at the Al-Itqon Bugen Islamic Boarding School in Semarang

The socialization began with a discussion about what PHBS (Clean and Healthy Living Behavior) is and why PHBS is important for santri. The discussion resulted in a definition that PHBS is a set of behaviors practiced by individuals (santri) and communities (pesantren) that aim to improve health and prevent disease. According to Novita et al. (2024), Sari et al. (2025), Wardani et al. (2023) In the pesantren environment, PHBS includes, take regular baths and maintain personal hygiene, wash hands with soap, brush teeth twice a day, use the toilet properly, dispose of trash properly and avoid unhealthy foods and drinks.

The discussion also noted the students' opinion that Boarding Schools that are far from PHBS standards are common in salaf Boarding Schools, so they do not feel that such an environment is unhealthy. However, after gaining an understanding of the importance of PHBS in their personal and community lives, they committed to reminding each other when their behavior does not comply with PHBS guidelines to start this program.



Figure 1. Implementation of Clean and Healthy Lifestyle (PHBS) Socialization among Santri

Training on the Use of the Mobile Education Application (AME) in support of the PHBS program

In the clean and healthy living education (PHBS) activities at the Islamic Boarding School, the Mobile Education Application method will be used: an application containing materials on PHBS, educational videos, interactive quizzes, and step-by-step hygiene guidelines. This app can be accessed by students via their mobile phones,

thereby enhancing the effectiveness of information dissemination and student engagement through this technological method. The primary objective is to increase student engagement and motivation in maintaining cleanliness in their respective environments and study spaces (Efendi et al., 2023). It is hoped that through the AME, the environment will become cleaner, ultimately making learning more enjoyable and healthy. In the learning process, a technology-based educational approach with gamification is used, which integrates game elements into the educational process using digital technology (Zhukova et al., 2023). With this technology, the Boarding School can create a more engaging and interactive learning environment for students while encouraging them to adopt clean and healthy living habits in their daily lives.

Application Profile

The Mobil Education application, designed for students at the Al-Itqon Bugen Islamic Boarding School in Semarang, is labeled "TAZKIYAH+" Tazkiyah is not just an application, but a movement toward a healthy, Islamic, and technology-based Boarding School. Tazkiyah is an educational app designed to support the implementation of healthy and clean living behaviors (PHBS) in communities, schools, and families (Yani et al., 2022). The name Tazkiyah is derived from the Arabic word meaning purification or cleansing, both physically and spiritually. This aligns with the PHBS objective of encouraging the community (students) to adopt healthy, clean living habits and positive behavior in their daily lives. The "+" symbol in the app's name symbolizes the added value it offers, which is holistic development that not only emphasizes physical health but also character building and spiritual awareness. With a simple interface and integrated educational content, TAZKIYAH+ serves as an educational learning tool and digital reminder to make clean and healthy living habits an integral part of the community's (santri) culture (Sari et al., 2025).

The evaluation results of the AME usage training activity showed that 93% of santri were able to create the AME application on their gadgets. There was an increase in digital literacy with an categorized as moderate. Preservation of Activities, namely after the activities have been completed, it is hoped that the village head and students can continue the activities through coordination with the Unnes community service

activity implementation team.

Most students (86%) experienced moderate to high improvement in digital skills. This is because students are not allowed to use gadgets all day long. It is this limitation on gadget use that caused the normalization gain results to fall into the low category.

Most students (86%) experienced moderate to high improvement in digital skills. This is because students are not allowed to use gadgets all day long. As a result, the limited time for gadget use, according to interviews with students, 99% of students are happy to be able to create applications and use them in their daily lives. However, since the curriculum at the traditional Boarding School does not yet allow students to learn optimally, the results of this training have not been maximized



Figure 2. Participants in Training on the Use of the AME Application “TAZKIYAH+” to Support PHB

CONCLUSION

This community activity obtained data showing that knowledge related to clean and healthy living behaviors among Islamic Boarding School students was categorized as good, while digital literacy skills were still categorized as moderate. These findings indicate that students still need to learn more about technology, both technology related to daily life and advanced technology.

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