Learning Arabic Language Sciences Based on Technology in Traditional Islamic Boarding Schools in Indonesia

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Abstract

This research aims to analyze traditional Islamic boarding school leaders' perceptions of technology, models of learning Arabic sciences in traditional Islamic boarding schools, forms of using technology in learning Arabic language sciences in traditional Islamic boarding schools, and foundation support for using technology in learning sciences. - Arabic language knowledge in traditional Islamic boarding schools. The type of research used is qualitative-descriptive. Research data was obtained using observation methods, in-depth interviews, and documentation. The instruments used are observation lists, interview lists, and documentation lists. Data were analyzed using ATLAS—ti9 software. The research results show that (1). traditional Islamic boarding school leaders' perception of technology is very positive, and there is no rejection of the presence of technology; (2). The model of learning Arabic language sciences in traditional Islamic boarding schools is still preserved, such as using the yellow book with the bandongan, sorogan, and wetonan methods (3). Using technology in learning Arabic language sciences in traditional Islamic boarding schools by operating computers, laptops, focus, and cell phones with the help of the internet (4). The foundation supports the use of technology in learning Arabic language sciences in traditional Islamic boarding schools by disbursing sufficient funds to procure learning technology tools or by building collaborations with other parties. This research aims to increase the use of learning technology in traditional Islamic boarding schools to create effective and efficient learning but remain resistant to Islamic boarding school values and traditions.

Keywords: Learning Technology, Traditional Islamic Boarding Schools, Kitab Kuning, Arabic Language Science.

Abstrak

kehadiran teknologi; (2). Model pembelajaran ilmu-ilmu bahasa Arab di pesantren tradisional masih terletak (3). Bentuk-bentuk penggunaan teknologi dalam pembelajaran ilmu-ilmu bahasa Arab di pesantren tradisional dengan menggunakan komputer, laptop, infokus, handphone dengan bantuan internet (4). Dukungan yayasan terhadap penggunaan teknologi dalam pembelajaran ilmu-ilmu bahasa Arab di pesantren tradisional dilakukan dengan mengalokasikan dana secara teratur untuk pengadaan alat-alat teknologi pembelajaran serta dengan membangun kerjasama dengan pihak lain. Implikasi dari penelitian ini adalah meningkatkan penggunaan teknologi pembelajaran di pesantren tradisional agar terwujud pembelajaran yang efektif dan efisien, namun tetap resisten dengan nilai-nilai dan tradisi kepesantrenan.

Kata Kunci: Teknologi Pembelajaran, Pesantren Tradisional, Kitab Kuning, Ilmu Babasa Arab

INTRODUCTION

Islamic boarding schools (Pesantren) as educational institutions have unique cultures, networks, and methods.1 There are at least five elements inherent in Islamic boarding schools: Mosques, Islamic Boarding Schools, Yellow Book Learning, Islamic boarding school students, and Khi. Alan divides the Islamic boarding schools in Indonesia into Traditional and Modern. There are two types of Traditional Pesantren: pure traditional (sorongan, bandongan and wetonan learning systems) and a mixture of traditional and modern or semi-modern (preserving traditional learning systems with formal schools and government curriculum).2 Meanwhile, modern Islamic boarding schools combine traditional learning systems with public schools, government curricula, and local content.3 Similar to this classification, Islamic boarding school types are divided into three typologies: salafiyah (traditional), khalafiyah (modern), and the combination of salafiyah and caliphate.4

Traditional pesantren have long been assumed to be Islamic educational institutions prioritizing learning the Kitab Kuning5 using minimal media without any touch of learning technology. According to Lubis et al., traditional Islamic boarding school traditions are characterized by exclusivity, unique life, and strong isolation from the outside world.6 Traditional Islamic boarding schools do not follow developments in the outside world, so


4 Mujamil Qomar, Pesantren: dari transformasi metodologi menuju demokratisasi institusi (Erlangga, 2005).

5 Classics books in Pesantren (read Martin van Bruinessen)

they have a tradition of being far from utilizing technology, including in the learning process. According to Pratama, one of the reasons why traditional Islamic boarding schools do not use learning technology is because it is related to teachers' weak competence in using learning technology.7

In fact, in the current era of rapid advances in technology and information, only some educational institutions can inevitably escape from utilizing technology, including traditional Islamic boarding schools.8 In the technological era, the education system seeks to equip students with essential twenty-first-century skills through which students can develop competencies.9 Therefore, how traditional Islamic boarding schools use technology to learn Arabic must be researched in depth. For at least two reasons: Firstly, because of its uniqueness while maintaining Islamic values in the use of technology. Second, the supporting capacity of the foundation and the human resource (HR) competence of traditional Islamic boarding schools.

Several related studies were found; Claire-Marie Hefner, Models of Achievement: Muslim Girls and Religious Authority in a Modernist Islamic Boarding School in Indonesia.10 Developing Learning Systems in Islamic Boarding Schools.11 Learning Arabic Pegon for Non-Javanese Santri at Pesantren.12 Lubis et al in the article “The Application of Multicultural Education and Applying ICT on Islamic Boarding Schools in South Sulawesi, Indonesia.”13 Learning Management in Salaf Islamic Boarding Schools.14

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Previous research has focused on offering Arabic language learning technology in Islamic boarding schools to modernize Islamic educational institutions. Still, it has yet to focus on traditional Islamic boarding schools. Meanwhile, Syafaah & Dewi's research is only limited to presenting the theoretical analysis of the challenges of traditional Islamic boarding schools in the Era of Globalization in learning Arabic. Meanwhile, this research elaborates on using Arabic language learning technology in traditional Islamic boarding schools, which many people assume needs to be touched by technology. This research will confirm the validity of the assumption that traditional Islamic boarding schools are far from being touched by technology, especially in the learning process. In line with this, this research aims to elaborate on the perceptions of traditional Islamic boarding school leaders and teachers regarding the use of Arabic language learning technology, as well as to elaborate on the actual practice of using Arabic language learning technology in some traditional Islamic boarding schools in Manadaling Natal Regency, North Sumatra, Indonesia. The research implications will be evaluative material for teachers, leaders, and traditional Islamic boarding school foundations to utilize technology as a medium and learning resource in developing innovative Arabic language learning designs.

RESEARCH METHOD

This research uses qualitative research with a case study approach. The use of the qualitative type in this research is considered more appropriate because qualitative research aims to explore and understand the meaning of individuals or groups related to social problems, which in this case is the use of Arabic learning technology in traditional Islamic boarding schools in the Regency. Meanwhile, according to the concept, the phenomenological approach used in this research describes the meaning for several individuals regarding their shared experience of a concept or phenomenon. The phenomenon referred to in this research is using technology for learning Arabic language sciences in traditional Islamic boarding schools.

This research was carried out from February to August 2021 at 7 traditional Islamic boarding school locations in Mandailing Natal Regency, North Sumatra: (1). Al-Mandily Islamic Boarding School, (2). Abinnur Al-Islamiy Islamic Boarding School, (3). Darul Ulum Islamic Boarding School, (4). Raihanul Jannah Islamic Boarding School, (5). Izzul Risale Islamic Boarding School (6). Nurul Amin Islamic Boarding School and (7) Nunukan Islamic Boarding School. All these Islamic boarding schools are dubbed Traditional Islamic Boarding Schools, and research was carried out after obtaining permission from the boarding school leadership. Meanwhile, data collection techniques were carried out by first in-depth interviews and meeting directly with informants. A semi-structured interview list was used as an instrument. Semi-structured interviews uncover problems openly and freely obtain ideas and opinions from participants. Four themes are explored, including leadership perceptions,

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learning models, forms of learning, and foundation support. This theme was then developed in the form of question items. Explanations and answers from participants that needed to be understood and by the theme were deepened and asked again to the participants so that detailed explanations were obtained. Each participant takes 30 – 45 minutes for the interview. Second, observation is to observe the learning technology facilities available in each Islamic boarding school. The observations were intended to confirm the information obtained through interviews and to see the actual practice of using technology in learning Arabic at traditional Islamic boarding schools.

The informants for this research consisted of key informants and supporting informants. The critical informant is the teacher or ustaz who teaches at the Islamic boarding school under study—informants supporting leaders (school principals) and Islamic boarding school foundations. Participants were recruited from the research location: 5 teachers, 1 leader (school principal), and 1 Islamic boarding school foundation, so the total number of research participants was 7. Research participants have agreed to participate and will provide the necessary information until the research is completed. This research has received permission from the Research Ethics Committee of the UIN SU Medan Research Ethics Committee with Number B. 145/Un.11.R/WR.1/L.1/PP.00.9/04/2023 of 2023. Participants aged between 20 and 70 years. The key informants, leaders/teachers/Ustaz who teach Arabic, are 6 men and 1 woman. Based on educational level, 5 people are non-graduate, and 2 are undergraduates. Participants worked as teachers for between 5 – 40 years.

Data analysis is the main key to research. Several researchers say that data analysis carried out from several sources (sites) and then mapped and described is a matrix analysis. Previous researchers analyzed data starting from coding, looking for themes reviewing themes, and conducting data analysis with MAXQDA. This research data was processed using ATLAS.Ti9 software to avoid data subjectivity. The advantage of using qualitative data analysis software is that simultaneously validating research data is carried out. Validity of research data with source triangulation.

The analysis stages start from organizing and processing the data with ATLAS—Ti9 software to synthesizing and concluding. Data was organized by compiling participant answers in verbatim transcripts for each participant in 1 separate file. Then, screen the informants' answers, select them, and classify them according to the research theme. Data processing begins by inputting data into a data processing application. Then, input the theme in coding form. Next, carry out an analysis of each theme supported by quotes from participants so that the validity of the 4 themes analyzed and the number of participants who provide quotes on the themes analyzed are tested. The final stage of analysis is to assess the closeness between themes by testing the co-occurrence value of each theme. This test is intended to evaluate the relationship between themes and a scheme of factors related to the

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18 Dr Umar Sidiq, M Ag, and Dr Moh Miftachul Choiri, “METODE PENELITIAN KUALITATIF DI BIDANG PENDIDIKAN,” n.d.
use of technology in traditional Islamic boarding schools. Compile a synthesis of research results after data processing; then, the results are presented as figures and tables. Then, study from various previous research sources until conclusions can be drawn.

RESULTS AND DISCUSSION

Result

The research results are described based on the problem formulation using ATLAS.ti 9 software, as follows:

Perceptions of Traditional Islamic Boarding School Leaders towards Technology

The results of research based on the help of ATLAS.ti 9 software regarding the Perceptions of Traditional Islamic Boarding School Leaders towards Technology in Arabic language learning, can be seen in Figure 1:

Figure 1: Themes of Islamic Boarding School Leaders' Perceptions of the Use of Technology in Learning Arabic Language Sciences

Figure 1 explains the informants' statements regarding the theme of Islamic Boarding School Leaders' Perceptions of the Use of Technology in learning Arabic sciences, supported by 15 statements from 7 informants. The forms of perception referred to are: (1). Not rejecting the presence of technology, as supported by informants 1, 2, 4, 5, 6, (2). Technology can make learning easier, as supported by informants: 1 and 2. (3). Supporting the use of Arabic language learning technology, as supported by informants 1, 2, and 3, (4). Providing language laboratories, computers, and laptops, although still in limited conditions, as supported by informant 7.
Model of Learning Arabic Language Sciences in Traditional Islamic Boarding Schools

The results of research based on the help of ATLAS.ti 9 software related to the Arabic Language Sciences Learning Model in Traditional Islamic Boarding Schools, can be seen in Figure 2.

Figure 2: Theme of the Arabic Language Learning Model in Traditional Islamic Boarding Schools

Figure 2 explains the informants' statements regarding the theme of the Arabic Language Learning Model in Traditional Islamic Boarding Schools, supported by 18 statements from 6 informants. The informant who did not provide a statement regarding this theme was informant 3.

As traditional Islamic boarding schools, these educational institutions still reflect a number of characteristics that identify themselves as traditional Islamic boarding schools, such as: (1). Restrictions on the use of Android cellphones for all students, as supported by informants: 1, 2, and 7. (2). Continue to use the turas books/yellow books, as supported by informants: 1, 2, 5, 7. (3). Practice of men-dhabit (writing the meaning of words under the text of turas books), as supported by informants: 1, 4 and 7. (4). The use of sarong and lobe costumes for students, as supported by informants: 6. (5). Boarding, as supported by informants: 6, and (6). Passive in Arabic, as supported by informants: 4.
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Forms of Using Technology in Learning Arabic Language Sciences in Traditional Islamic Boarding Schools

The results of research based on ATLAS.ti 9 software related to the forms of using technology in learning Arabic language sciences in traditional Islamic boarding schools, can be seen in Figure 3:

![Figure 3: Themes of the Use of Technology in Learning Arabic Language in Traditional Islamic Boarding Schools](image)

Figure 3 explains the informants' statements regarding the theme of using Arabic language learning technology, supported by 21 statements from 7 informants. The forms of technology used by traditional Islamic boarding schools include (1). Android cellphone. In general, all leaders and teachers of traditional Islamic boarding schools welcome the use of cell phones, although it must be limited; such as only Arabic language teachers who may use it to search for additional teaching materials, such as videos, YouTube, etc. Meanwhile, students are prohibited from using Android cell phones except during exams. This is supported by informants 5, 6 and 7. (2). Computer/laptop. Use of computers/laptops in the learning process as supported by informants: 1, 2, 3, 4 and 7. (3). Infocus is used in the Arabic
language learning process, as supported by informants 1, 2, 3, and 7. (4). The Arabic Language Laboratory is also used in learning Arabic sciences as supported by informants 5 and 7.

**Foundation Support for the Use of Technology in Learning Arabic Language Sciences in Traditional Islamic Boarding Schools**

The results of research based on ATLAS.ti 9 software assistance related to the foundation's support for the use of technology in learning Arabic language sciences in traditional Islamic boarding schools, can be seen in Figure 4:

**Figure 4**: Foundation support regarding the use of technology in learning Arabic language sciences.

Figure 4 explains the informants' statements regarding the theme of foundation support regarding the use of technology in learning Arabic sciences by 22 statements from 7 informants. The form of support referred to is (1). Having the perception of not rejecting the use of technology in learning Arabic sciences, as supported by informants: 1, 2, 3, 5, and 6. (2). Providing many technology-based Arabic language learning facilities, such as computers/laptops, InFocus, language laboratories, and Wifi. The availability of these technological tools is obtained by purchasing and/or being donated by other parties, such as donations from the Indonesian Ministry of Religion. The provision of computers/laptops was
supported by informants 2, 3, 5, and 7. Meanwhile, the provision of Infocus was supported by Informant 2 and the provision of Wi-fi was supported by Informant 7.

From the four topics/discussion codes mentioned above, through the ATLAS.ti 9 software, the relationship between themes can be identified as can be seen in Figure 5:

![Diagram showing the relationship between themes/codes](image)

**Figure 5: Relationship between themes/codes**

From Figure 5 above, it can be seen that the perception of traditional Islamic boarding school leaders regarding the use of technology in learning Arabic language sciences is related to the model of learning Arabic language sciences in traditional Islamic boarding schools and is also related to the form of use of technology in learning Arabic language sciences in Islamic boarding schools, traditional. The relationship in question is that the choice of learning model and form of use of technology in learning Arabic sciences improves if the perception of traditional Islamic boarding school leaders is positive towards technology, and vice versa.

Meanwhile, the foundation's support for the use of technology in learning Arabic sciences in traditional Islamic boarding schools is part of the perception of traditional Islamic boarding school leaders regarding the use of technology. In other words, the level of foundation support depends on the level of perception of technology; The more positive the perception, the higher the support, and vice versa.

In line with this, the foundation's support for the use of technology in learning Arabic language sciences in traditional Islamic boarding schools is related to the model of learning Arabic language sciences in traditional Islamic boarding schools. The relationship in question is that maximum foundation support for the use of technology can improve the selection and use of learning models for Arabic language sciences in traditional Islamic boarding schools, and vice versa.

To find out the close relationship between the themes above, with the help of ATLAS.ti 9 software, can be seen in Table 1.
Table 1: Close relationship between themes, based on co-occurrence values

<table>
<thead>
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<th></th>
<th>FORMS OF...</th>
<th>FOUNDATIO...</th>
<th>LEARNING...</th>
<th>PERCEPTION...</th>
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<tbody>
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<td>3 (0.08)</td>
<td>6 (0.20)</td>
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<tr>
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<td>12 (0.39)</td>
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<td>2 (0.06)</td>
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<tr>
<td>LEARNING...</td>
<td>3 (0.08)</td>
<td>7 (0.23)</td>
<td>2 (0.06)</td>
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</tr>
<tr>
<td>PERCEPTION...</td>
<td>6 (0.20)</td>
<td>7 (0.23)</td>
<td>2 (0.06)</td>
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Through table 1 above, this research finds that foundation support is closely related to the use of technology in learning Arabic with a co-occurrence value of 0.23. The perception of traditional Islamic boarding school leaders in learning Arabic sciences regarding technology is closely related to the form of technology use with a co-occurrence value of 0.20, and the learning model in traditional Islamic boarding schools is closely related to the use of Arabic language learning technology with a co-occurrence value of 0.08.

Discussion

The Islamic boarding school referred to in this research is a traditional Islamic boarding school also called a Salafiyah Islamic boarding school with activities focused on deepening Islamic religious knowledge (Tafaqqah fi Al-Din). Anwar stated that Salafiyah Islamic boarding schools focus on deepening the practice, expanding and mastering Islamic treasures. Salafiyah Islamic boarding schools are different from Salafy Islamic boarding schools; Islamic boarding schools teach Salafism whose teachings are mostly referred to the works of Muhammad ibn 'Abd al-Wahhab, the founder of Wahhabism in Saudi Arabia.

Discussion of research results related to the use of language science learning technology in traditional Islamic boarding schools can be described as follows:

Perceptions of Traditional Islamic Boarding School Leaders towards Technology

Perception or perspective is the starting point in providing concepts and behavior or actions towards something. Positive perceptions can give birth to positive actions or treatment. On the other hand, negative perceptions can give rise to negative actions or treatment. Thus, Islamic boarding school leaders’ perceptions of technology can have an impact on policies and the use of technology in traditional Islamic boarding schools. This is relevant to the research results of Selanno which states that perception is a process of sensing, stimuli received by individuals through sensory organs which are then interpreted so that

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individuals can understand and comprehend the stimuli they receive.\textsuperscript{22} The process of interpreting this stimulus is usually also influenced by the individual's experience and learning process.

This research shows that none of the leaders and teachers of traditional Islamic boarding schools are anti-technology. The perceptions referred to include: The use of technology is very good in learning because teachers can show new things related to learning, such as being able to show videos of up-to-date cases as additional resources/teaching materials to students. So according to them, his presence can make everything easier, including learning Arabic language sciences. Along with this, several traditional Islamic boarding schools are trying to provide language laboratories, computers, and laptops, although they are still in limited conditions.\textsuperscript{23}

The results of an interview with one of the Islamic boarding school leaders, Izzul Risale, explained that "this Islamic boarding school never thought that because technology came from the Western world, it had to be rejected. In principle, every object produced by humans can be used for good and vice versa, it can also be used for evil."

In principle, this positive perception is interesting, because, in the opinion of many parties, traditional Islamic boarding school leaders do not welcome technology. Because it will harm the values of the Islamic boarding school being built. The traditionality of Islamic boarding schools can also be seen in the simplicity of its facilities and infrastructure. The manager's mindset is relatively backward and tends to avoid technological advances. However, it turns out that all the traditional Islamic boarding schools that were the location of this research expressed positive responses to technology, but still maintained their traditional values. The results of this research are relevant to the research of Harahap & Lubis which states that Mustafawiyah Purbabbaru-one of the author's research locations-in the era of globalization which is characterized by digitalization in various aspects of human life, remains resistant (survives) and upholds its traditions, starting from the learning system that still uses yellow books, wetonan, sorogan and memorizing learning methods, banjars made of wood as a place to live, taking care of their own lives, cooking for themselves, bathing in the river, and maintaining their turbans.\textsuperscript{24}

The positive perception of traditional Islamic boarding school leaders towards technology is also an interesting reality in this research. Because in terms of age, almost all of the leaders of Islamic boarding schools in the research locations are parents or elders who technically cannot use advanced technological tools in learning. However, they have quite a visionary view, that technological progress cannot be stopped, its role in everything is very


\textsuperscript{24} As'ad, “Implementing Life Skill Education in an Environment-Based Pesantren”; Azmi, Hadijaya, and Syah, “Management System of Sunnah Islamic Boarding School in Shaping Character of The Students.”
decisive, so teachers must be able to adapt to technological advances, at least as users in improving the quality of learning. On the other hand, the positive perception of traditional Islamic boarding school leaders does not necessarily liberate the use of technology in the Islamic boarding school environment. Students/students are prohibited from using Android cellphones and are prohibited from accessing the internet with any device. This can be understood as the control power of Islamic boarding schools in maintaining the morals and learning discipline of students. Because the use of Android cellphones and uncontrolled Wi-Fi facilities is believed to have the potential to disrupt study concentration, and can even degrade the morals of female students.

This positive response becomes a strong energy in driving enthusiasm to advance Islamic boarding school educational institutions while maintaining traditional values. This positive response also shows that traditional Islamic boarding schools have responded well to modernization. The results of this research are in line with research by Isbah which states that The Pesantren found a strategy to respond to modernity's challenges through a strong identity as a salaf Islamic boarding school and a living culture that encourages self-reliance, self-sufficiency, social concern, and self-dedication. Once established, such as personal and communal character and spirit have to be accompanied by good management and broad networks, as well as financial strength. This is the result of Silviana Putri Kusumawati's research, which states that Islamic boarding schools can use technology in learning to remain surfing amidst the rapid progress of globalization while still adhering to Islamic values.

Model of Learning Arabic Language Sciences in Traditional Islamic Boarding Schools

The model referred to in learning Arabic language sciences in traditional Islamic boarding schools is practical traditionalism which reflects the traditionality of Islamic boarding schools in learning Arabic language sciences, including:

Restrictions on the use of Android cell phones for all students

Android cellphones are smartphones that have an operating system as a result of development by Google. This system offers some interesting features and applications, which make the owner feel well-served. As a medium, like other media, Android cellphones have many positive things as well as many negative things. Android cellphone users can open a window to the world with all kinds of important and interesting information that can broaden the owner’s insight. On the other hand, Android cellphone users can also access immoral content which is wide open and available at any time.

Restrictions on the use of Android cellphones as facilities/medium for learning Arabic language sciences for Santri and female students in traditional Islamic boarding schools because considering that the control power of each Santri and female students of their age is still very weak, it is feared that it could interfere with learning concentration and the negative

impact may be much greater, bigger than the positive. So the majority of traditional Islamic boarding schools only allow the use of Android cellphones specifically for leaders and teachers, so that teachers can add media and learning resources for students and female students.

The results of this research are relevant to the research results of Aziz, Muchlis, and Suryadi who say that negative influences include being able to cause teenagers to experience dysfunction, direct face-to-face interaction time, the presence of cellphones disrupting the quality of direct interaction, cellphones making teenagers hyperpersonal, cellphones making teenagers consumptive and cellphones making teenagers less sensitive to the surrounding environment.

*Using the turaṣ books*/Kitab Kuning

The use of the yellow book also called the turaṣ book is a characteristic of every traditional Islamic boarding school in Indonesia, in fact, the label "traditional" cannot be used for Islamic boarding schools that do not use the yellow book. This is in line with the opinion that one of the strengths of traditional Islamic boarding schools is the organization of yellow book learning.27

Of the seven Islamic boarding schools that were the locations of this research, all of them used the Yellow Book in learning Arabic language sciences. The Arabic language sciences used in traditional Islamic boarding schools in Mandailing Natal are Naḥwu, Ṣaráf, Maˈānī, Bayān, Bādi, Ṣaḥīr, Arqa wa Al-Qawāfīj, Insha’, Ḳuṭṭābāh, Tārikh Adab. The results of this research are supported by Ghulayain in his book with the title *"Jāmi‘ Al-Durās al-’Arabiyyah"*28, which is also relevant to the results of Bruinessen’s research with the title "The yellow book; Books in Arabic Script used in Pesantren milieu" and research by Aliyah, with the title "Traditional Islamic Boarding Schools as a Base for Learning Nahwu and Sharaf Using the Yellow Book"29, as well as research by Ritonga, with the title "The Existence of (Kitab Kuning ) as the Sources of Islamic Studies at Islamic Boarding Schools Within the Industrial Revolution Dialectics.”30

Not only Arabic sciences, traditional Islamic boarding schools also use the Yellow Book to study other Islamic sciences, such as fiqh, Sufism, Aqeda, history, etc. The results of this research are in line with the results of research by Amrizal which states that the identity of


traditional Islamic boarding schools is attached to the use of yellow books. Likewise, according to Taher's research, learning the Yellow Book in Islamic boarding schools can be a basis for students to continue using the Yellow Book as a reference in understanding and responding to progress that reformulates Islamic thinking.

From the beginning of the establishment of traditional Islamic boarding schools in Mandailing Natal in particular and in Indonesia in general, the use of the yellow book has remained preserved and has not undergone any changes, so the texts used are nothing new. This is relevant to the research of Rasyidin and Harahap & Lubis.

Learning the yellow book in all traditional Islamic boarding schools where this research is located is carried out by Ustaz by reading the text, translating and explaining it as well as conducting questions and answers with students. Meanwhile, students listened and took notes on the ustaz’s explanation. This method is called the bandongan method. This learning method is in line with the results of research by Rasyidin, which states that the habit of teachers, who are usually referred to as fathers, is teaching yellow book literature by reading the contents of the book, translating, explaining the contents, and answering questions if there are students who ask. Apart from the bandongan method, the traditional Islamic boarding school at this research location also uses the sorogan method, where students come to the ustaz and read the text of the yellow book and translate it, while the Ustaz corrects the students’ reading and translation. This method is also found in other Islamic boarding schools, as mentioned in Fentia's research with the title "Implementation of the Sorogan Method in Nahwu Learning at the Salafiyah Al-Mujahidin Rawalo Banyumas Islamic Boarding School" and research Ulya with the title: "Identification Factors of Teacher Resistance to Technology as a Support for Learning in Salaf Islamic Boarding Schools".

**Practice men-dhabit (writing the meaning of words under the text of the turats books)**

By using the bandongan and sorongan methods, men-dhabit has become very familiar among female students. Men-dhabit is a method used by Santri to understand the texts of the yellow book by writing the meaning under the Arabic text whose meaning the Santri do not know. In many cases, not only writing down the semantic aspect/meaning of the word, but also confirming the syntactic aspect, namely giving the i'rab/position of the word.

Men-Dhabit also shows its uniqueness, because students cannot write in Latin script, but must use Arabic-Malay script. Practically, this also shows the efforts of traditional Islamic

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34 Rasyidin, “Pembelajaran Kitab Kuning di Pesantren Musthafawiyyah, Mandailing Natal.”

boarding schools to preserve Arabic-Malay script as part of local wisdom and a characteristic of Islamic boarding school education in the archipelago.

If we look at it from the perspective of the cleanliness and tidiness of the book, the practice of habituating does not support this at all, and makes the book look dirty because there are some graffiti. The more mufradat that are foreign to students, the more dhahitan there is in the book. For this reason, there is one Islamic boarding school out of the seven traditional Islamic boarding schools that have abandoned this tradition, namely the Izzurrisilah Islamic boarding school which prohibits students from reading their books. The teacher tells the students to prepare another book and note down important things in the book, such as the unknown meaning of mufradat or the questionable word I'rab.

The results of the research are in line with Muhakamurrohman's research which states that the characteristics of traditional Islamic boarding schools are that the learning system still uses the bandongan and sorogan systems, as well as the material taught comes from yellow books (turaš), Arabic books written by the ulama. Islam both abroad and within the country. Large Islamic boarding schools that currently still adhere to traditional teaching systems include the API Tegalrejo Islamic Boarding School, al Falah Ploso Kediri, Pondok Lirboyo Kediri, Sidogiri Islamic Boarding School, Langitan Islamic Boarding School, and al-Anwar Sarang Rembang. Fatchan et al. said that "Bandongan" is a skills training pattern with a group approach typical of "Islamic boarding schools" that produces whole humans.

The majority of traditional Islamic boarding schools, including all Islamic boarding schools that were the location of this research, focus more on the ability to read and understand turaš books. The bandongan, sorogan and wetonan methods build the ability of students to be able to elaborate on the content of the yellow books. This tradition almost ignores the students' ability to hear Arabic (mahārah istimā'), speak Arabic (mahārah kalām), and write in Arabic (mahārah kitābah). Finally, the majority of traditional Islamic boarding school graduates have passive competence in Arabic; are able to understand other people speaking Arabic, but are not able to answer muhadašah well.

This reality occurs more due to the lack of a good Arabic language environment in traditional Islamic boarding schools. The Arabic language environment referred to is the conditioning of social interactions in the Islamic boarding school environment using Arabic. Students are not required to use Arabic in daily conversations, as is done in modern/Khalafiyah Islamic boarding schools.

The abilities of traditional Islamic boarding school graduates are unequal; very competent in the receptive aspect (reading), but low in ability in the aspects of listening, speaking, and writing. The last two abilities are called productive competencies.

Concerning the use of learning technology, the use of learning technology becomes limited. Because teachers are not much challenged to use technology if only to build reading


38 Ritonga, “The Existence of Yellow Books (Kitab Kuning) as the Sources of Islamic Studies at Islamic Boarding Schools Within the Industrial Revolution Dialectics,” December 21, 2020.
skills (qirā’ah) for female students. It would be very different if traditional Islamic boarding schools developed the four mahārah lagawiyah of Arabic, it would require a lot of representative media and learning resources, generally referred to as ICT (Information and Communication Technology).

**Forms of Using Technology in Learning Arabic Language Sciences in Traditional Islamic Boarding Schools**

Technology can be interpreted as a whole means of providing goods necessary for the continuity and comfort of human life. Technology has influenced society and its surroundings in many ways and fields, including the field of education, and one of them is the traditional Islamic boarding school educational institution. The use of technology in learning Arabic sciences in traditional Islamic boarding schools is still very limited. For example, the availability of laptops and computers that can be used for learning is not sufficient for all teachers. Infocus is only available in 1 (one) unit, and not all Islamic boarding schools have an Arabic language laboratory.

The limited limitations of technology are not because traditional Islamic boarding school leaders and teachers reject and are anti-technology, but rather because of the limited financial aspects of Islamic boarding school leaders. Simultaneously, the economic level of parents who enroll their children in traditional Islamic boarding schools is also lower middle class. This condition makes traditional Islamic boarding school leaders unable to increase Education Development Contributions (cost) so that ultimately the development of Islamic boarding schools does not move forward, in fact, it only continues in place, both physically and in terms of quality.

The factor of sufficient financial availability is very influential on the development of educational institutions. The financial availability of Islamic boarding schools can be obtained independently by Islamic boarding school leaders, and can also be obtained through collaborative partners with other parties. Many traditional Islamic boarding schools still lack cooperation and partnerships with other institutions, so ultimately, opportunities to obtain assistance for educational facilities are still very limited.

Another factor that limits the use of learning technology in traditional Islamic boarding schools is the limited competence of teachers in using this technology. Not all teachers are familiar with technology, such as laptops, in focus and laboratories. The results of this research are the same as the results of research Pratama which explains that one of the reasons Islamic boarding schools do not use learning technology is because it is related to teachers’ weak competence in using learning technology. More teachers in Islamic boarding

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schools choose traditional learning methods, namely using blackboards and books. The use of technology can improve learning discipline.\textsuperscript{42}

Even though it is still in very limited conditions, the use of technology in traditional Islamic boarding schools shows a change in paradigm and vision in the management tradition of traditional Islamic boarding schools.\textsuperscript{43} The traditional meaning no longer indicates the management of educational institutions which must be anti-technology and far from civilization. However, leaders and teachers at traditional Islamic boarding schools have the desire and motivation to use technology even in limited conditions.

According to Fauzi et al., at the Darul Lughah wal Al-Karomah Kraksaan Probolinggo Islamic boarding school, they have built e-learning-based learning, and the results can improve the quality of Islamic boarding school education as well as making it easier to convey learning information so that learning is better, effective and efficient.

The forms of using technology in learning Arabic language sciences in traditional Islamic boarding schools are: First, the use of cell phones. All leaders and teachers of traditional Islamic boarding schools use cell phones. This tool is used to search for additional learning materials and resources, such as videos, YouTube, etc. to improve students' Arabic language competence.\textsuperscript{44} However, its use is very limited, only teachers are allowed to use this tool, while students are prohibited from using cell phones. Second, the use of computers/laptops. All traditional Islamic boarding schools have computers/laptops, at least for administrative purposes. On average, traditional Islamic boarding schools have very limited computers/laptops, so they can only be used by certain teachers, such as to access additional materials and learning resources for Arabic language sciences. However, at least, leaders and teachers do not reject the presence of technology. Third, use Infocus. Infocus is used at certain moments, such as extra-curricular activities, by displaying Arabic language videos that can be watched by all students in the same place to increase the student's understanding of \textit{lughawiyyah}. Fourth, the use of the Arabic language laboratory. Arabic Language Laboratories are available in many traditional Islamic boarding schools which are obtained through government assistance (Ministry of Religion). The laboratory is used to hone students' language skills; in Arabic and English.

The four types of technology above are used in traditional Islamic boarding schools. The technology in question is generally referred to as Information and Communication Technology (ICT) media. Sholihah its development is urgently needed in all types and levels of educational institutions, including in Islamic boarding schools to increase institutional


prestige and accountability.\textsuperscript{45} Ketut Sudarsana et al., stated that technology is very helpful in packaging the process of education or teaching and learning process to become more innovative and able to attract attention and grow students' learning motivation.\textsuperscript{46}

This research is in line with the results of research by Ritchey & Muchtar, which states that the use of technology in traditional Islamic boarding schools is not only within the scope of the learning process but has also been carried out by some Islamic boarding schools to ward off the negative image of Islamic boarding schools as a basis for radicalism by using social media.\textsuperscript{47} like YouTube on cellphones and laptops etc. In a broader context, Haris explains that the increasingly widespread use of the internet for educational purposes, especially in developed countries, is a fact that shows that with this media it is possible to carry out a more effective teaching and learning process.\textsuperscript{48} This happens because the nature and characteristics of the Internet are unique, so it is hoped that it can be used as a medium for utilizing information technology in learning Arabic not only at the school level but also at the college level.

**Foundation Support for the Use of Technology in Learning Arabic Language Sciences in Traditional Islamic Boarding Schools.**

Foundations are the ownership element of an institution and play a very urgent role in the continuity of institutions, such as educational institutions, including Islamic boarding schools. All Islamic boarding schools are under the auspices of a foundation, an institution that makes decisions regarding the sustainability of the Islamic boarding school. Islamic boarding schools that receive full support from the foundation will have a positive impact on the progress of the Islamic boarding school, and vice versa; Islamic boarding schools that do not receive full support from the Foundation, cause Islamic boarding schools to not run smoothly, and they can even go bankrupt or close.

The results of this research show that the foundation's support for the use of technology in learning Arabic language sciences in traditional Islamic boarding schools includes: First, there is no rejection of the use of technology in learning Arabic language sciences. The foundation's support for the use of technology in learning Arabic sciences in traditional Islamic boarding schools cannot be separated from positive perceptions of technology.\textsuperscript{49} Because rejection of technology harms support for the availability of technology


\textsuperscript{46} Sudarsana et al., “Application of Technology in Learning the Religion of Hindu as an Educational Efforts to Improve the Creativity of Students.”


in Islamic boarding schools. The results of this research show that leaders and teachers in traditional Islamic boarding schools are not anti-technology.

Second, some Islamic boarding school foundations can provide computers/laptops, focus, language laboratories, and WiFi as a means of technology-based Arabic language learning. This learning technology was obtained with funds provided by the foundation, and some were also obtained from donations from the Indonesian Ministry of Religion. In this last context, it shows the importance of cooperation with partners. This also shows that traditional Islamic boarding schools are not closed, and open to collaboration with many parties.\footnote{50 Dery Jamaludin Basari et al., “Human Resource Management Model in Islamic Boarding School-Based Private Madrasah Tsanawiyah,” Nidhomul Haq: Jurnal Manajemen Pendidikan Islam 8, no. 1 (February 26, 2023): 14–30, https://doi.org/10.31538/ndh.v8i1.2884.}

In general, the majority of traditional Islamic boarding schools have very limited finances. However, these limitations can be overcome by looking for and opening up opportunities for collaboration with other parties, so that quite a few of them receive assistance with facilities, both adequate facilities and infrastructure. This is following the opinion of Damayanti who said that concerning the quality of education, cooperation between each stakeholder in an organization will certainly provide a different assessment.\footnote{51 Niken Damayanti, “Pentingnya Kerjasama Bagi Peningkatan Mutu Pendidikan” (Pendidikan, 2019), https://osFio/at6vxe/download.} The characteristics of improving the quality of education that was previously discussed will work well if each stakeholder moves according to their function. Apart from that, we must create strong relationships and cooperation so that inequality does not occur. In other words, all the characteristics above require the role of every stakeholder involved. The stakeholders in the world of education in question are the government as the highest authority, the community as the controller, and the school as the implementer.

CONCLUSION

Traditional Islamic boarding schools in Mandailing Natal Regency are open to using Arabic language learning technology. This research also counters the opinion that traditional Islamic boarding schools need to be touched by technology, such as the research results of Lubis et al. and Pratama and Ulya et al. The results of this research show no rejection of the use of technology in learning Arabic language sciences in traditional Islamic boarding schools. Leaders and teachers have used technological tools in teaching and learning, such as computers or laptops, cellphones, InFocus, laboratories, and WiFi. All types of technology can facilitate the transfer of knowledge to students. Like, Teachers can enrich the answers to cases asked by students. Teachers can download videos and other online learning resources using computers, laptops, and cell phones to convey to students. Teachers can use Infocus to display learning films that students can watch simultaneously. However, the use of technology in traditional Islamic boarding schools still needs to be improved, both in terms of quantity of use and in terms of availability of facilities, such as the inadequate number of computers or laptops, cellphones, InFocus, laboratories, and WiFi. In short, even though the Arabic language science material in traditional Islamic boarding schools is not current, it can be
contextual because it is supported by IT-based learning technology, both as media and learning resources.

At least three factors cause the limited use of the technology in question. First, it is caused by financial limitations. Many traditional Islamic boarding schools need strong enough funds to provide technology-based learning facilities and infrastructure. The financial quality of the student's financial input could be better. The economic level of the students who enter Islamic boarding schools is mostly lower middle class. Finally, the Education Development Contributions charged by Islamic boarding schools are relatively cheap—second, limited cooperation with stakeholders. To resist Islamic boarding school traditions, many Islamic boarding school leaders and teachers have closed themselves off from outside parties, including stakeholders. In the context of resistance to Islamic boarding school values, students are prohibited from using Android cell phones. Third, there is a need for teachers to be more competent in applying technology-based learning media. The educational background of the majority of Islamic boarding school teachers is alumni, and the lack of competency development of teachers has contributed to the low ability of many teachers to use technology-based learning tools.

This research is still limited to the research location, which is only one district, namely Mandailing Natal Regency in North Sumatra. Even though this district is the base for traditional Islamic boarding schools in North Sumatra, there are still many traditional Islamic boarding schools in other districts and provinces that could be a continuation of this research. Apart from that, the factors that limit the use of technology in traditional Islamic boarding schools, as mentioned above, are also opportunities for further research. Also, the effect on the learning outcomes of Arabic language sciences in traditional Islamic boarding schools needs to be researched further.

REFERENCES


Sahkholid Nasution et al


