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Utilization of Electronic Community Library as A Localhost-Based Digital Library in Optimizing Learning Resources

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A B S T R A C T S

This study aims to provide alternative solutions in procuring media sources for teaching materials for students who are constrained by the internet network, especially in the implementation of distance learning during the Corona. Utilization of learning resources with the Electronic network. The method in this study is presented in a descriptive form. The method is in the form of analyzing the problem in the community and identifying potential, including program design, socialization, field observation methods carried out to determine the location of local network installations, program training, and assistance in the implementation of offline digital library systems. The results of alternative solutions resulting from this mentoring process include learning media sources that can be accessed without internet quotas, making them more effective and efficient. Students' interest in learning is increasing because they utilize the Electronic Community Library. Teachers use more varied sources of teaching materials. The use of the Electronic Community Library can provide a significant influence on the teaching and learning process. The advantages of the Electronic Community are that it is easy to access, has a variety of features, has an attractive appearance, and the maintenance of the device is quite efficient. The Electronic Community Library is a real solution in the world of education, especially for areas that have limitations in accessing the internet network. The Electronic Community Library is not only beneficial for students, but also for teachers, parents, and the community, especially in the development of digital literacy.

A R T I C L E   I N F O

1. INTRODUCTION

Electronic Community Library is a local network-based digital library that can be understood in two ways. First, the abbreviation "E" stands for Electronic and "C" stands for Community, while Library means library. Second, the way the pronunciation is read "easy" or in Indonesian means easy. Electronic Community Library as a learning medium is very effective to use in areas that have internet network constraints, especially in distance learning as experienced by Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar. Digital libraries offer convenience for their users to access electronic information resources with fun tools at limited times and opportunities. Users are no longer physically tied to library service hours where users have to visit the library to get information. Therefore, digital libraries can facilitate and solve the problem of limited access (Widayanti, 2015). The Electronic Community Library has features that can support distance learning such as Electronic Learning, namely features for conducting distance learning such as learning material information media and task collection. This feature is very efficient to use in Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar who have problems obtaining learning resources such as textbooks. Another feature is Video, which is a feature that provides free learning videos. The Electronic Community Library is available in an android application so that all students can access it on their devices and can be accessed from home.

Learning media is a tool that can help the teaching and learning process so that the meaning of the message conveyed becomes clearer and the goals of education or learning can be achieved effectively and efficiently. Learning outcomes are the results given to students in the form of an assessment after following the learning process by assessing the knowledge, attitudes, and skills of students with changes in behavior. Learning media serves as a learning resource for students to obtain messages and information provided by the teacher so that learning materials can be further improved and form knowledge for students (Nurrita, 2018). Previous reports explained well for this matter, for example :

(i)   The design and standardization of digital libraries (Susanto, 2010). This research is good because it provides differences from existing types of libraries, such as ancient libraries, modern libraries, digital libraries, and even virtual libraries;

(ii) What needs to be remembered when building a mobile library is, all data management activities using an internet connection, including the library that must also be connected to the internet for borrowing collections. The results of the researchers' observations were by observing several mobile libraries.

(iii) With the same goal as the Electronic Community Library program, namely creating learning materials with a digital library. However, the features provided are not as many as those in Electronic Community Library because Electronic Community Library presents learning resources through video, not only e-books, making it easier for students to understand the material better (Arwidiyarti & Butar, 2018).

(iv) Efforts to meet the needs of users. Currently, the National Library of the Republic of Indonesia subscribes to various online digital library materials (e-Resources) such as journals, e-books, and other online reference works and can be used freely and free of charge by users (Widayanti, 2015).

(v)   Building a digital library. But, several components must be readded. Constraints faced in the form of limited Human Resources and time, several attempts have been and will be made to overcome the fear of failure in building a digital library (Irkhamiyati, 2017).

The purpose of this study is to provide alternative solutions in procuring media resources for teaching materials that are experiencing internet network problems, especially in distance

learning. Utilization of learning resources using the Electronic Community Library offline media without using the internet network is very effectively used by Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar which has problems with the internet network. The methods used in this study are identifying potentials and analyzing problems in the community, program design, socialization, field observation methods are carried out to determine the location and location of local network installations, program training, and assistance in implementing offline digital library systems. Through this mentoring method, alternative solutions are obtained that are media sources of teaching materials that can be accessed without an internet quota. So, it is more effective in using internet quota. Schools are more varied in using teaching material sources, which initially only used conventional learning resources, now use offline digital learning media. The use of the Electronic Community Library can have a good influence on the teaching and learning process, including increasing student interest and interest in learning. The Electronic Community Library is different from other digital libraries because it uses a local network so there is no need to use internet data to access it. In contrast to other people's research, the novelty in this research is the utilization of (i) digital libraries (Electronic Community Library) that do not use internet quota but can be accessed by local networks. (ii) more diverse features, apart from electronic books, Avideo is also available which is easy to access. (iii) Electronic Community Library android application that can be accessed more easily by students and the public. The use of information technology learning media can have a good influence in increasing the interest in the teaching and learning process (Muammar & Suhartina, 2018).

2. METHODS

The method in this study was presented in a descriptive form. The method was in the form of analyzing problems in the community and identifying potentials. This study was conducted in a blended manner, namely a combination of virtual-digital, online, and offline while still observing health protocols. In this study, we held meetings with partners, both offline through team representatives from one city or online 12 times. The flow of the implementation method is in **Figure 1**. **Figure 1** explains that the first method was planning and preparation. Broadly speaking, the team conducted discussions with fellow members or accompanying lecturers, surveys, and observations with partners, designed the design of the Electronic Community Library feature, and the installation process on the design. The second activity was implementation, the team implements the designs that have been made in the previous stage. The last activity carried out by the team was evaluation and report generation to find out how far the Electronic Community Library can be useful for partners.
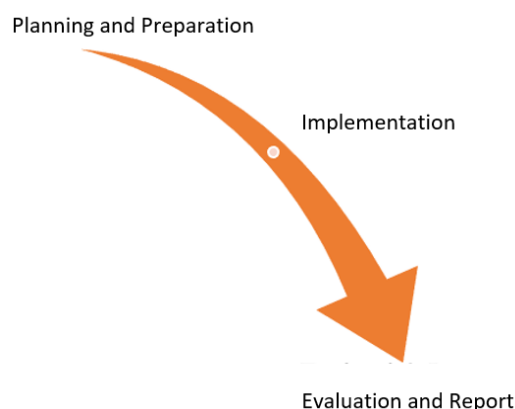

Figure 1. Flow of implementation method.

3. RESULTS AND DISCUSSION

This study was conducted to meet the needs of the community in the use of learning media resources, especially for distance learning. This research went through several stages, namely as follows. The first stage is planning and preparation. In this stage there are eight activities, namely; (i) Coordination with the team online through Google Meeting media; (ii) Creation of an online workspace on the Notion application; (iii) Conduct online discussions with Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar through the WhatsApp application; (iv) Online discussions with accompanying lecturers through Zoom Meeting media; (v) Online surveys and observations with partners; (vi) Designing the design and features of the application system that will be applied to the online Electronic Community Library; (vii) Making Electronic Community Library tutorial videos and collecting sample materials for the content of each Electronic Community Library feature; (viii) Installation of the design and features of the Electronic Community Library system. The second stage is implementation. At this stage, there are 3 activities, namely; (i) Implementation permits carried out online through Google Meeting media with representatives of Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar partners. This activity aims to obtain a permit for research activities from the head of the local area, namely the Head of the Hamlet Village; (ii) Preparation of a schedule with partners to determine the deadline for conducting research as well as the concept of socialization and training activities regarding the Electronic Community Library conducted online through WhatsApp media; (iii) Socialization of the Electronic Community Library program is carried out using the blended method. Blended learning is a teaching and learning process that combines a face-to-face system with information and communication technology (Ayunda *et al.*, 2020).

The socialization which was carried out offline continued to adhere to strict health protocols and was attended by 11 people in the same room at Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar. Consisting of representatives from Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar, teachers, parents, local regional heads, and a team that is in the same city with partners. The socialization which was carried out online was carried out through the Zoom Meeting media which was attended by other team members and lecturers who accompanied the Student Creativity Program team to the community. Meanwhile, other students and parents listened via YouTube Live Streaming. (iv) Program training aims to ensure the sustainability of the digital library program, even without assistance in the future. Research conducted by giving pre-test and post-test will improve learning methods that are still using the old method. The experimental class that was given a pre-test and post-test treatment would have more readiness and ability than the control class that was not treated with pre-test and post-test (Effendy, 2016). The results of this socialization activity were in the form of pre-test and post-test to measure the understanding of Madrasah Diniyah Takmiliyah Awaliyah and the interest of target partners in the Electronic Community Library program. The results are shown in **Figure 2**. It can be seen in **Figure 2** that before the Electronic Community Library socialization activities were held, the average value of the pre-test was 25.00%. After the implementation of the Electronic Community Library socialization, the average value of understanding and interest of partners increased to 89.00%.

This program training includes the concept of local systems and networks, management practices of Electronic Community Library features such as Inlislite3, E-Learning (Moodle), and AVideo as a video streaming platform, the addition of the Inlislite3 e-book, the creation of Electronic Learning on the Moodle system, as well as the addition of video on AVideo feature. Moodle is an open-source Learning Management System that can be obtained freely through

http://moodle.org. The use of Moodle can overcome the limitations of space and time and make it easier for educators to evaluate every activity that has been carried out by students. Moodle can also assist in monitoring activities to solve problems and make learning more effective and efficient (Ilmadi *et al.,* 2020). The training was carried out 3 times with the administrators of the Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar library which had previously formed as many as 3 people including the head of the library, technical services, and school principals. After the training, the team conducted a test to know the results of the successful training that has been carried out, which can be seen in **Figure 3**. **Figure 3** shows that with the Electronic Community Library, this goal can be achieved. This is evidenced by the results of the concept test and training practice scores reaching 76.00; from 100.00%.

The era of digitalization is closely related to major changes in the world of technology for all aspects of life, including education. Therefore, the administrators of the Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar are required to understand conceptually and have the ability to manage the Electronic Community Library system (Pratiwi, 2020). (v) Assistance in program implementation is carried out for 3 weeks. The mentoring stage starts from purchasing tools and materials, followed by configuring network equipment. The team provided assistance and delivery of tools to the Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar by representatives of the team in the same city as partners, as well as assisting in the application of the tools. Madrasah Diniyah Takmiliyah Awaliyah implemented the implementation of the tool independently, accompanied by an online team. The last stage in this community service is the evaluation and report stage.
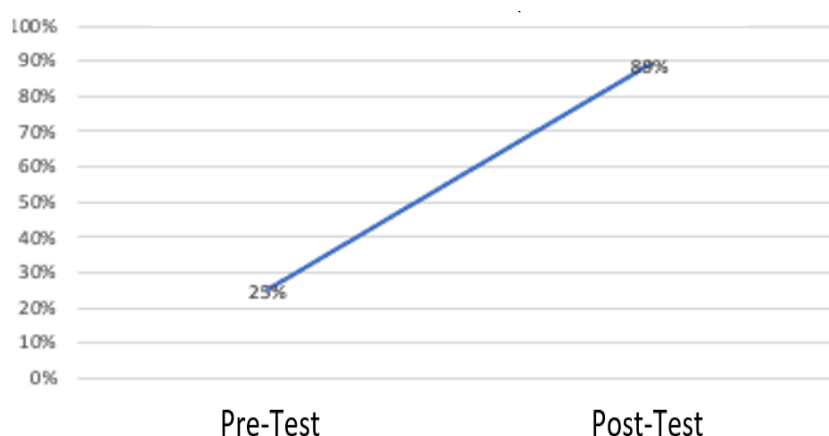

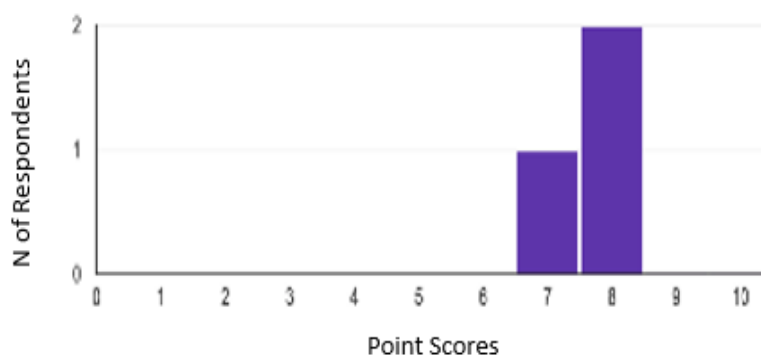**Figure 2.** Pre-Test and post-test comparison results.

Figure 3. The results of the concept test and practice test scores.

At this stage, there is the launch of the Electronic Community Library digital library as well as the distribution of evaluation questionnaires to measure, identify, and reflect on the system that has been built. According to Ridho (2018), the main purpose of evaluation in the teaching and learning process is to obtain accurate information about the level of competency achievement by students according to the formulated indicators (instructional objectives) so that follow-up can be pursued. Thus, the team was able to find out the improvements that had been felt, both by the Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar, students, and the surrounding community. This activity is carried out online through YouTube and WhatsApp live streaming. In running distance learning, partners find it difficult to get learning because of coronavirus disease 19 and the lack of available facilities can be overcome with the Electronic Community Library program.

In running distance learning, partners find it difficult to get learning because of coronavirus disease 19 and the lack of available facilities can be overcome with the Electronic Community Library program. The implementation of the Electronic Community Library program that is applied makes good and significant changes to the smooth learning, among others:

(i) The existence of library facilities that support the situation to comply with health protocols during the Corona Virus Disease pandemic makes partners still able to carry out learning or study at home through their respective devices so that the learning resources needed by students and students of Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar can be available, and education can continue to run in Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar, Cimuncang village.

(ii) The process of studying at Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar became easy to increase interest in reading and learning among students and students of Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar. This is because digital libraries can be accessed without using internet quotas to reduce the negative impact caused by the existence of the online internet.

(iii) Reduced social contact (crowding) in book lending activities because all activities are done digitally, in the sense of being done in their respective homes. This helps the problems of students in Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar in distance learning in terms of being constrained by signals or unable to buy internet quotas and do not have a source of learning materials.

Table 1 shows that with the Electronic Community Library the condition of students, teachers, and parents in Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar becomes better because it has a source of learning media that can carry out Distance Learning/

The advantages of Electronic Community Library include (i) Saving space because the collection of digital libraries is digital documents, so the storage will be very efficient; (ii) Multiple access means that users can take advantage of the same collection of digital books for reading or download or transfer to their personal computers; (iii) Unlimited in space and time, meaning that the digital library can be accessed from anywhere and anytime with a record of a computer network (computer internetworking); (iv) Collections can take the form of a combination of text, images, and sounds, can even store documents that are only moving images and sounds (films) that are impossible to replace with text; (v) The cost is cheaper, meaning that relatively it can be said that the cost for digital documents is cheap, but not entirely true because to produce an electronic book it is likely to require a considerable cost. However, if you look at the nature of electronic books that can be duplicated by an unlimited amount, it can be concluded that the electronic document is very cheap (Sunu, 2014).

Table 1. Real condition and after receiving assistance from the Electronic Community Library program.

	Before	After
Student	(i) Disconnected access to learning resources. (ii) Students' enthusiasm for learning is low. (iii) Rarely use digital learning resources. (iv) Distance learning is not effective because it does not have supporting media. (v) Difficult to understand learning.	(i) Can study at home. (ii) Students' interest in learning increased. (iii) Learning resources are more varied with the existence of a digital library. (iv) Distance learning is effective because it has supporting media. (v) Learning becomes easy to understand.
Teacher	(i) Limited learning media. (ii) Sources of teaching. (iii) materials are monotonous and not varied. (iv) Not familiar with digital sources. (v) Conventional learning techniques.	(i) Available learning resources. (ii) The existence of a variety of teaching materials is very interesting for students. (iii) Get to know the source of teaching materials digitally. (iv) Learning techniques are not only conventional ones but also digital techniques as well.
Parent	(i) It is difficult to find sources of learning materials for their children because of distance learning. (ii) Unfamiliar with digital content. (iii) It is wasteful to use the internet quota to help children's learning process. (iv) Concern for children who are affected by the negative effects of the internet.	(i) Make it easier for parents to find sources of learning materials during distance learning. (ii) Get used to digital learning resources. (iii) Start saving on the use of the internet for children's learning needs. (iv) Don't worry about your child being affected by the negative effects of the internet.

4. CONCLUSION

This research was conducted in several stages, including planning, implementation, and evaluation. After the existence of this program, partners get various answers to various problems that occur. Digital library facilities can support the teaching and learning process at Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar in various conditions, especially during a pandemic. Students can still learn while at home, especially in gaining access to reading material sources. The learning process of partners becomes easier, thereby increasing students' interest in reading because the Electronic Community Library can be accessed without using the internet. In addition, there is a reduction in physical contact when borrowing and borrowing books because the library is available in digital form. This program is very important because it can be disseminated and used as a reference in carrying out similar services in frontier, remote, and underdeveloped areas. Thus, this service program can be a solution to various problems for Madrasah Diniyah Takmiliyah Awaliyah Al-Azhar, including teachers, students, and parents of students.

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6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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