

# Development of a Digital-Based Village Library to Increase Community Literacy in Ngajaran Hamlet

Fitriah M. Suud <sup>a,1,\*</sup>, Isnanita Noviya Andriyani <sup>b,2</sup>

<sup>a</sup> Universitas Muhammadiyah Yogyakarta,

<sup>b</sup> Universitas Islam Negeri Raden Mas Said Surakarta

<sup>1</sup> [fitriahmsuud@gmail.com](mailto:fitriahmsuud@gmail.com); <sup>2</sup> [isnanita.na@staff.uinsaid.ac.id](mailto:isnanita.na@staff.uinsaid.ac.id)

\* Corresponding Author

## ABSTRACT

The library is an indispensable tool to increase children's interest in reading, especially the village library is a facility that is needed by the community. But so far there are still many village libraries that are still constrained in their operations. This service aims to provide digital library management training and also to increase public interest in reading. The process of this service activity takes place in 3 stages. The first is the provision of library data input training. Previously, the servant handed over a laptop unit to the Matahati village library. This is because all library activities are carried out manually. So that the servant took the initiative to provide digital devices that could be used for library management needs as expected. Library management became more organized after the SLims (Senayan Library Management System) application was installed on the devices that have been submitted, which is an open source software used to manage libraries digitally. The second process in this service is to hold library management training. This training is considered very important for library managers and also other visitors. Cataloging and presentation of collections/shelving has become more organized and systematic. Apart from focusing on digital library management, this service also aims to increase children's interest in reading. Therefore, in addition to holding library management training events for administrators and the local community, the process of the three servants holding several competition activities for Sidomulyo village children which aims to increase their love for visiting the library and can increase their interest in reading.

## KEYWORDS

Digital;  
Village;  
Interest in Reading;  
community literacy;  
Library



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## 1. Introduction

Libraries as the spearhead of the reform and development movement in society are also still not optimal in carrying out their roles and functions [1]. We can see how the library itself is currently still shackled with various problems, as we can see and we often encounter how difficult it is for the development of libraries in society. This is due to various factors such as the lack of school attention and awareness of the library, the absence of professional staff (librarians) who manage the library, to limited visiting hours for children in the neighborhood to the library because they have to go to school. The existence of a library for the community is very important, because the library is one way to educate the nation's life [2]. Not only that, the library also has a role in transforming science and technology democratically for modern society [3]. The village library is a type of public library located in the village/kelurahan environment. The village library is the spearhead of library services that are very close to community life. By definition the village library is a "community library" as a means/media to improve and support rural community education activities, which are an integral part of village/kelurahan development activities. Public libraries are libraries that are funded from public funds, partly and fully, open to the general public without discrimination of age, gender, religion, race, occupation, descent and provide services only to the public. Libraries exist and are developed today as a center for information, resources for science, education, research, recreation and preservation of national treasures and provide a variety of other services. It is necessary to understand that the existence of a village library in the midst of the community must match the professional background of the community and the library also has the goal of providing information to users, namely everyone around

the library, regardless of differences in race, age, gender, education and so on. . Sociologically, the existence of a library cannot be separated from the social order.

Research on libraries has been widely carried out and used for reference in this community service. Inclusive Library Services for Individuals with Mental Illness and Disorders was researched by Green [4]. Struggling to breathe: COVID-19, protests and LIS responses researched by Gibson [5]. Towards a truly portable BLAS library across different types of accelerators was researched by Rodriguez-Gutierrez [6]. Disrupting libraries: Digital scholarship and Big Data at the Scottish National Library researched by Ames [7]. Libraries in 3D virtual worlds: a critical review researched by De Sarkar [8]. Libraries on the outskirts: Pedro de Castro learning Arabic researched by Boyano Guerra [9]. Enhancing Academic Library Experience with Chatbots: An Exploration of Research and Its Implications for Practice was researched by Mckie [10]. Libraries, books, and reading during COVID-19 were researched by Blanco [11]. Utilizing Radio Frequency Identification in Libraries researched by Ganapathi [12]. Information infrastructure management for decision support in selected military university libraries in Poland based on own research was researched by Kuźnik [13]. How Beginners Use the Expert Case Library for Problem Solving was researched by Tawfik [14]. Evaluation of the technical efficiency of cultural institutions in Poland: a case study of a regional system of public libraries researched by Suchecki [15].

Direct loading on the floors of libraries and newspaper archives was investigated by -Hernández [16]. Science Review for Science Librarians: Vitamins and Trace Elements That May Prevent or Ameliorate in This Age of Contagion was researched by Stankus [17]. iMOPSE: a library for bicriteria optimization in Multi-Skill Resource Boundary Project Scheduling Problems researched by Myszkowski [18]. More to offer than books: stakeholder perceptions of public library-based dining programs researched by De La Cruz [19]. A common Cyber-Physical framework for academic libraries was researched by Ding [20]. Positioning Libraries to Meet Public Health Challenges in India: Key Strategies researched by Narang [21]. Equity in access? The number of books available in grade 1, 3 and 5 libraries was studied by Hodges [22]. Finding suitable library sizes for calling variants in RNA-Seq was investigated by Quaglieri [23]. The economics of culture, books and reading was researched by Cameron [24]. Flexi-pharma: a molecular ranking strategy for virtual screening using a pharmacophore of a ligand-free conformational ensemble investigated by Lans [25]. Finding the best Weather Forecasting and Research model performance: an empirical score approach researched by Moreno [26]. cDNA-detector: detection and elimination of cDNA contamination in DNA sequencing libraries investigated by Qi [27].

Digital Earth Observation Libraries: a data mining approach to large satellite image archives researched by Datcu [28]. Design thinking as a business concept and tool in library management was researched by Sabolović-Krajina [29]. The brain-computer interface in the context of information retrieval systems in libraries was studied by Wójcik [30]. PDAUG: a Galaxy-based tool for peptide library analysis, visualization, and machine learning modeling researched by Joshi [31]. Guidance in librarianship: meeting needs, overcoming challenges is researched by Adekoya [32]. Personalized Book Recommendation Algorithm for University Library Based on Deep Learning Model researched by Hou [33]. Responding to COVID-19 in African universities: the case of the Lesotho National University library researched by Mbambo-Thata [34]. Development of a Conference Rubric for STEM Librarian Publication was researched by Over [35]. Libraries in the Open Science Information Ecosystem were researched by Redkina [36]. Offline motion libraries and online MPC for advanced mobility skills were investigated by Bjelonic [37].

MaxDIA enables library-independent and library-independent data acquisition proteomics researched by Sinitcyn [38]. About Innovative Work and Development of Library Reader Services in the Age of Artificial Intelligence researched by Zhang [39]. Experience from the Exporting Library Assistant for Primary Evidence was researched by Kohlhasse [40]. Toxicological Information Literacy Protects Human Health was researched by Juvonen [41]. Comparable Sample Size Spectral Library Increases Proteome Coverage Based on Data-Independent Acquisition of Low Input Cells studied by Siyal [42]. Information Seeking Behavior, Attitudes, and Choices of Academic Physicists was studied by Gordon [43]. The partner conditions can be described as follows, that so far the library has existed but it is still very simple. In the hamlet of Ngajaran the library was opened by a resident who donated his house to become a library. This library has started to increase children's enthusiasm for reading, but there are obstacles and limitations. Some of the obstacles are the lack of interesting books because the supply of reading books is not many and not varied. The management, who is Karang Taruna youth,

also experiences problems in accessing information due to the lack of digital facilities and infrastructure in the library. While it is known that many books can actually be accessed digitally, the limitation that has been experienced so far is that there is no infrastructure to open a digital library. Welcoming children's reading interest which is starting to increase, this dedication aims to improve the quality of library management and at the same time attract students' interest to continue to love reading.

Furthermore, the current phenomenon that occurs in the learning process is that almost all educational institutions use online and digital systems in the learning process. Digital is finally no longer a foreign item for students but has also become a necessity for students. So that the learning process in all lines needs to pay attention to this side of digital use. Likewise, in library management, of course, a digital touch is needed to keep pace with the times and the needs of society, especially children, in order to increase children's interest in reading. If so far many children are accustomed to digital but use it to play like playing games, then the use of digital tools is directed to more positive uses. So it is deemed necessary to introduce digital literacy to children in the village. Therefore this service contributes to developing village libraries that already exist but are not yet running optimally and are more oriented towards digital use. The library is the Matahati library which is located in the teaching hamlet of Sidomulyo Village, Bambanglipuro District, Bantul, Yogyakarta.

## 2. Method

The steps taken in this service are the preparation stage which consists of internal coordination of the PKM team, surveying activity locations, managing permits, making PKM instruments and materials for activities in the field, providing assistance and training in library management, the last is the monitoring and evaluation stage as PKM implementation feedback. In more detail, it can be conveyed that the process of community service activities takes place in 3 stages. The first is the provision of library data input training. Previously, the servant handed over a laptop unit to the Matahati village library. This is because all library activities are carried out manually. So that the servant took the initiative to provide digital devices that could be used for library management needs as expected. If previously all records, both the name and number of books, data on borrowers and visitors, were all done manually, after digital devices were available, library data could be arranged properly. Library management became more organized after the SLims (Senayan Library Management System) application was installed on the devices that have been submitted, which is an open source software used to manage libraries digitally. With this application the cataloging problem becomes more organized, as well as library membership, and thus visitors will be able to see all the complete collections in the library, along with book return dates, as well as various detailed information related to the books in the library.

The second process in this service is to hold library management training. This training is considered very important for library managers and also other visitors. This was evident from the enthusiasm of the participants in asking questions about the library. So far, the library managers only know that there are books, and then the children come and read. Meanwhile, managers only need to provide books such as guest books to record visitors and also record borrowing books. Currently, they are more enthusiastic about managing the library because they are enlightened on library standards. That in managing the library it is necessary to pay attention to 1) Inventory, 2) Classification, 3), Cataloging and Presentation of collections/ Shelving.

Apart from focusing on digital library management, this service also aims to increase children's interest in reading. Therefore, in addition to holding library management training events for administrators and the local community, the process of the three servants holding several competition activities for Sidomulyo village children. The children invited to this event were divided into 3 categories, namely kindergarten students, elementary students and junior high school students. The reason for inviting them to take part in several competitions at the library is to make them interested in the library and get to know the library from an early age. The competitions held were coloring contests for kindergarten children with medium difficulty levels, coloring competitions for elementary school students with high difficulty levels and storytelling competitions for junior high school children. There were 40 children who took part in the event.

### 3. Results and Discussion

The first activity in the service is to provide an explanation to the public, especially to library managers, about the importance of digitization. Literacy currently has many variations, such as media literacy, computer literacy, science literacy, school literacy, and so on. The essence of critical literacy in a democratic society is summarized in five verbs: understanding, surrounding, using, analyzing, and transforming texts. All of these refer to competencies or abilities that are more than just the ability to read and write. According to Mills (Yunus et al: 2017). "Saying that we have experienced a broader shift in the history of text culture, towards a point where the visual mode is more prominent with the help of new technology." Furthermore, it is necessary to convey about the principle of literacy which has seven basic principles: a. Principle of interpretation b. The principle of collaboration c. Convention principle d. The principle of cultural knowledge e. Principles of problem solving f. Principles of language use g. The principle of reflection.

This literacy also has four levels, namely: performative, functional, informational, and epistemic. People whose literacy level is at the performative level, they are able to read and write, and speak with the symbols used (language). At the functional level, people are expected to be able to use language to fulfill everyday life, such as reading manuals. At the informational level, people are expected to be able to access knowledge with language. Meanwhile, at the epistemic level, people can transform knowledge into language (Ibadullah: 2017). Thus the level of literacy starts from the lowest level, namely performative, functional, informational, and epistemic. This explanation aims to add insight as well as provide motivation to enjoy reading.



**Fig. 1.** Coordination of event implementation for competitions to increase children's interest in aca

Furthermore, this activity provides an explanation of the library management strategy. The participants were very enthusiastic about participating in this event because they felt this was a very important material in their efforts to develop their village library. The Matahati village library is getting better than before, but if you refer to the Regulation of the Head of the National Library of the Republic of Indonesia Number 6 of 2017 concerning National Standards for Village/Kelurahan Libraries there are still a number of things that need to be addressed. 1) That the minimum book that must be owned is 1000, 2) 3, The library has the latest collection (last five years) of at least 10% of the total collection, 4) The library has types of collections for children, youth collections, adults, reference collections, newspapers and magazines. The library collection consists of various disciplines according to the needs of the community, the reference collection consists of at least encyclopedias and dictionaries.



**Fig. 2.** Digital library management training for Karang Taruna managers and youth

Apart from focusing on digital library management, this service also aims to increase children's interest in reading. Therefore, apart from holding library management training events for administrators and the local community, the servant also held several competitions for the children of Bambanglipuro village. The children invited to this event were divided into 3 categories, namely kindergarten students, elementary students and junior high school students. The reason for inviting them to take part in several competitions at the library is to get them interested in the library. The competitions held were coloring contests for kindergarten children with medium difficulty levels, coloring competitions for elementary school students with medium and above difficulty levels and storytelling competitions for junior high school children. There were 40 children who took part in the event. The servant paid attention to the children who arrived earlier than the set time in the morning at 09.00 but at 08.00 they had arrived. Almost all of the children who attended immediately approached the special children's books that had been prepared in the library, while waiting for the program to begin the children were engrossed in reading and looking at the pictures in the books they had chosen.



**Fig. 3.** Implementation of a painting and coloring competition for children

After the event the servants gave motivation for them to love reading, the servants showed motivational posters which were deliberately displayed to attract the interest of the visitors. Observing the attitude of the children who came to take part in the competition, it can be concluded that they actually have an interest in reading, it's just that an interesting way is needed to get them to visit the library frequently. The servant is very optimistic that this dedication will give a positive impression for the children in this teaching hamlet which will be a stimulus for them to increase children's interest in reading.

#### 4. Conclusion

Observing the attitude of the children who attended the competition, it can be concluded that they actually have an interest in reading. Therefore, an interesting way is needed to get them to visit the library frequently. The servant is very optimistic that this dedication will have a positive impact on the children in this teaching hamlet which will be a stimulus for them to increase children's interest in reading. Likewise with library managers who are enthusiastic about managing the library well, namely through digitization so that they can provide better service to visitors. So that this service is felt to be useful for the development of libraries in Ngajaran.

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#### Author Contribution

This service aims to provide digital library management training and also to increase public interest in reading. The process of this service activity takes place in 3 stages. The first is the provision of library data input training. The second in this service is to hold library management training. This training is considered very important for library managers as well as other visitors. The three volunteers held several competition activities for the children of Sidomulyo Village which aimed to increase their love for visiting the library and to increase their interest in reading.

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#### Conflict of Interest

The authors declare no conflict of interest.

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