



Optimizing the Utilization of Online Public Access Catalog as a Means of Information Retrieval in Libraries

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Abstract

This study aims to explore the optimization of the Online Public Access Catalogue (OPAC) as an information retrieval tool in the Library of SMA Negeri 3 Medan, focusing on identifying the challenges and barriers to its effective use. A qualitative descriptive approach was employed, utilizing interviews, observations, and documentation as data collection methods. Interviews were conducted with a librarian and three students, while observations focused on the practical issues related to OPAC usage. The findings reveal that the use of OPAC in the library is not optimal, with challenges including system integration difficulties, insufficient librarian training, and limited user familiarity. Efforts to enhance OPAC usage involve promoting OPAC awareness, increasing computer access points, and ongoing system maintenance. However, the effectiveness of these measures is hindered by technical and educational constraints, highlighting the need for targeted interventions to fully leverage OPAC's potential in improving library services.

Introduction

In the development of the information age that changes all human lives, it is more advanced and sophisticated. Of course, it also leads to the development of all field facilities, especially education, technology and information. This is a challenge for libraries to be able to keep up with developments. Libraries need to be equipped with reading materials that are in accordance with their field of expertise so that they can function as a source of teaching. As an educational institution, the main purpose of libraries is to assist users in using them as a source of knowledge, training, and reference on various issues (Ningsih & Sayekti, 2023; Chowdhury, 2002; Nkanu et al., 2013).

Article 1 of Law Number 43 of 2007 concerning Libraries defines a library as an institution that organizes written, printed, and/or recorded works professionally by using a standard system to meet the needs of its users in the fields of education, research, preservation, and information, and recreation. The library has contributed greatly to the progress of national education and the interests of the world of education, in the library there are information services to students of all ages and religions (Mushtaq et al., 2021; Roy et al., 2020). Specifically, school libraries are libraries that are part of the school environment and offer books and other reading materials relevant to academic needs, such as books from government, encyclopedias, and magazines of an educational nature (Iztihana & Arfa, 2020; Wibowo, 2023; Morris, 2010; Reading, 2000).

School libraries are required to keep up with developments by applying technology in service management, especially in the process of retrieving information. Retrieval of information in a library is the process of successfully and efficiently rediscovering library collections offered by libraries to determine their location. Proof of the application of information technology in managing services that have been applied by school libraries is to use the library's (Iswika et

al., 2022). Online Public Access Catalog (OPAC) to search for information. A tool called the Online Public Access Catalog (OPAC) is used in libraries to process resources and create catalogs, including card catalogs and machine-readable with bibliographic information (Song et al., 2018; Igbudu & Ver, 2020). While OPAC can facilitate the processing of library materials, ease the workload, and ensure that materials are used in a way that is intuitive for librarians, online catalogs allow librarians to better manage library materials, save time, money, and energy, and facilitate information retrieval. more adaptable. In addition, since today's users prefer to get information quickly and everything online, OPAC can be very helpful. In addition, OPAC can be used to promote library collections. The presence of OPAC is expected to improve the performance of libraries in providing collections for users (Haruddin et al., 2024; Puspitha, 2021; Bidayasari, 2020; Isnaini & Widayati, 2021).

One of the school libraries that has used OPAC to take materials is the library of SMA Negeri 3 Medan. Jalan Budi Kemasyarakatan No. 3 West Medan District in Pulo Brayan Kota is the location of the library of SMA Negeri 3 Medan. In the implementation of information retrieval services, the SMA Negeri 3 Medan Library has been using an automation system in the form of the Senayan Library Management System (SLiMS) since 2022. An application software called SLiMS was created to handle all library automation needs, including tasks related to library management. A web server and client system are used to implement the web-based SLiMS application, which makes it very easy to use as it can be accessed over an internet network. Many library management tasks, including processing, borrowing, returning, and managing members, can be made easier with SLiMS, and most importantly SLiMS users can access OPAC to view library resources, including reading lists, dictionaries, bibliographies, and encyclopedias. Today, libraries and other information organizations use SLiMS extensively. It is recorded from the sources found by the author, all North Sumatra libraries that use SLiMS have reached 375 libraries (Iskandar & Wijayanti, 2022; Sari et al., 2023; Putri et al., 2022).

The Library of SMA Negeri 3 Medan uses OPAC as a means of retrieving this information because it has a large collection of approximately 9000 copies with approximately 3 librarians. However, based on the initial observations made by the author, not all school users have used OPAC in searching for collections. This shows that the use of OPAC as a method of searching for information in libraries does not go well. Users still often look for the collections they need by asking the librarian. There are even some users who look for collections directly to the bookshelf without looking at the online catalog first. In fact, the purpose of libraries using OPAC is because it has many advantages and conveniences, so that it allows users to find collections in the library quickly and accurately (Waller, 2010). Not only that, OPAC also provides information about the location, number of titles, subjects, copies, and status of the collection. So that the existence of OPAC users can more easily find the information they need (Taher et al., 2019; Haruddin et al., 2024; Zidanne et al., 2023).

The use of OPAC has been widely applied in libraries, both school libraries and libraries of other institutions. However, even so, the utilization of OPAC has not been fully carried out optimally, there are several obstacles that hinder the use of OPAC not optimally. As stated in the results of research conducted by Septrina & Manita (2022) conducted at the Bukit Tinggi City Public Library, because OPAC has not been fully utilized as an information retrieval tool, users usually visit bookshelves to find the books they need rather than using OPAC. OPAC is not used by users as an information retrieval tool (Ternenge et al., 2020). This shows how inadequate the OPAC service of the Bukit Tinggi City Public Library is. This is due to the challenges faced by users both internally and externally such as the lack of visitor reach in the library. The Online Public Access Catalog (OPAC) has no guidance on how to utilize it, and

there are still few computers available to use as an information search tool (Seprina & Manita, 2022; Nwobu & George, 2024).

This is also in line with research from Lukas Nanlohy, Jeffry W. Londa and Anita Runtuwene stating that so far, the Senayan Librarian Management System (SLIMS) with the OPAC feature has been used, but its utilization has not been optimal because there is only one unit of service tools, less librarian staff, and low user education (Nanlohy et al., 2023; Bell & Shank, 2007).

Meanwhile, according to research from Diah Arum Retnowati, users can improve library services, reduce the cost of providing catalogs, enable fast and accurate information retrieval, make collection locations more accessible, expand the number of ways to search for collections, and learn more about the status of collections as a retrieval tool by utilizing OPAC as an information retrieval tool. Go back and search for information wherever the user wants. However, there are a number of challenges for users who use the library to retrieve information, including the sometimes-erratic internet network and certain collections whose status is not synchronized with OPAC, and the Library has not provided socialization and user training to users on how to use OPAC (Haryanto et al., 2022). In addition, there are no clear instructions on how to use OPAC so users cannot make good use of it (Retnowati, 2023).

Based on previous problems and research, there are several similarities with previous research with the author's research, namely with the similarity of the problem of OPAC utilization which is not optimal and there are obstacles in utilizing it, but what distinguishes it from previous research is that the author is interested in researching the optimization of OPAC utilization in the Library of SMA Negeri 3 Medan. The purpose and benefits of the author conducting the research are to explore how to optimize the use of OPAC as a means of retrieving information in the Library of SMA Negeri 3 Medan and what are the obstacles and challenges of librarians in optimizing the use of OPAC as a means of reunion in the library.

Methods

This study employs a qualitative descriptive methodology, which is particularly suited for exploring the nuanced experiences of individuals within their specific contexts. By focusing on the chronological narratives of participants, the research aims to provide a detailed understanding of the use of the Online Public Access Catalogue (OPAC) at the Library of SMA Negeri 3 Medan. The primary objective is to identify the obstacles and challenges faced by both students and library staff in optimizing OPAC as an effective information retrieval tool.

Data collection for this study is multifaceted, incorporating interviews, direct observations, and documentation analysis. Semi-structured interviews were conducted with key participants, including one librarian, Mrs. Rhenny Ristanti, and three student users: Ochi Naura, Aliffah, and Sharen Angelica Naomi. These interviews were designed to elicit in-depth responses regarding their experiences with OPAC, focusing on specific challenges and suggestions for improvement. The open-ended nature of the questions allowed participants to express their thoughts and feelings freely, providing rich qualitative data. In addition to interviews, the research included direct observations of OPAC usage within the library setting. This observational component allowed the researcher to identify real-time issues related to the interface, accessibility, and overall user engagement with the system. By witnessing how users interacted with OPAC, the study could gain insights into common hurdles and patterns of behavior that might not be captured through interviews alone. Supplementing these methods, a thorough documentation review was conducted to explore existing literature and scientific sources relevant to OPAC usage and library information retrieval systems.

The analysis begins with thematic coding of the interview transcripts, identifying recurring themes related to the challenges faced by both the librarian and student users of the Online Public Access Catalogue (OPAC). Key issues include difficulties navigating the OPAC interface, inefficiencies in information retrieval, and varying levels of digital literacy among users. This thematic approach allows for a deeper exploration of how these challenges impact the overall user experience and their ability to utilize the OPAC effectively.

To enhance the reliability of the findings, the observational data were analyzed in conjunction with the interview results through a process known as triangulation. This method compares the themes identified in the interviews with real-time behaviors observed in the library setting. For instance, if students express confusion about specific OPAC features during interviews, the researcher examines whether similar patterns emerge during observations. This cross-validation strengthens the findings and provides a nuanced understanding of user interactions with the OPAC. Additionally, the documentation review adds depth to the analysis by situating the findings within the broader context of library science and information retrieval practices. By integrating insights from existing literature, the study identifies common challenges faced by educational institutions while also highlighting local issues specific to SMA Negeri 3 Medan.

Results and Discussion

Optimizing the Utilization of Online Public Access Catalog (OPAC) as a Means of Information Gathering in the Library of SMA Negeri 3 Medan

The library is a growing organization, through the function of the library, the library must be able to keep up with developments in all forms of aspects that support one of them in information technology. The Online Public Access Catalogue (OPAC) is one of the proofs of the application of information technology in a library to be used as a means of retrieving information. The presence of OPAC is very beneficial for librarians and users.

The information search feature available at the Negeri 3 Medan High School Library is the Online Public Access Catalog (OPAC). There are several benefits of OPAC, namely the following (Qalyubi, 2003):

Information search can be done effectively, quickly and easily

Hafiah defines OPAC as an installed catalog as a database of catalog records that can be accessed by the general public or information seekers. Readers can find the library collections they need quickly, precisely, and accurately by utilizing OPAC. If the circulation system and catalog are connected, users can find out if the library materials they are looking for exist or are available for loan (Hafiah, 2011).

In contrast to the Negeri 3 Medan High School Library, regarding the use of OPAC at the Medan State High School Library, there are still many users who have difficulty finding the information they are looking for, even many users come to the library without looking at the online catalog (OPAC). This is in line with the results of the respondent's interview with one of the users of the SMA Negeri 3 Medan Library with the initials O who said:

"for the use of OPAC, I have searched for collections through OPAC but I think the collections in the library are not completely in OPAC because I often look for books in OPAC but they are not listed while in the library the collection exists. That made me unable to find information quickly and easily through OPAC, so I immediately asked the librarian."

The results of the first user interview were also supported by the second user with the initials A, namely:

"regarding the search for information can be done effectively, quickly and easily, I myself have not felt it because sometimes the information in OPAC is not accurate"

The results of the interviews of the two users were also supported by the third user with the initials S, namely:

"the existence of OPAC sometimes helps me in knowing the collection I am looking for, but often I do not feel that the book collection at OPAC is incomplete compared to the bookshelf collection"

The statement from the user was also supported by the results of the respondent's interview with Mrs. Rhenny Ristanti, the librarian of the Library of SMA Negeri 3 Medan who stated:

"The presence of OPAC should be able to help improve library services, but for the use of OPAC in our library has not been optimally running, because even then we librarians are carrying out an optimization process or efforts to optimize the use of OPAC, including in the search for information can be done effectively, fast and easy, we are in the stage of promoting OPAC to students who come to the library so that slowly all students in the school know about the existence of OPAC in the library and for the completeness of the collection, we are targeting to input books that have not been input into OPAC."

This shows that the use of OPAC in the Library of SMA Negeri 3 Medan through theoretical results and supported by the statement obtained by the author from user and librarian interviews regarding information search that can be done efficiently, quickly, and easily by users saying that by using OPAC they have not felt significant benefits regarding information search effectively, It's quick and easy. while for librarians by using OPAC they are in the optimization stage by promoting the existence of OPAC and targeting to input library collections into OPAC, for this reason, it can be concluded that the utilization of OPAC has not run optimally. Librarians are still in the process of optimization and with the optimization carried out by librarians related to information search can be done effectively, quickly and easily, it is hoped that it can provide much better changes so that the use of OPAC as a means of retrieving information in the SMA Negeri 3 Medan Library can run optimally.

Searches can be done together without disturbing each other

In keeping up with the development of information technology, libraries must be ready to meet all information technology needs in managing library services. One of them is to take advantage of OPAC, hardware or computers are required. In the Dictionary of Library and Information Management it is also mentioned that OPAC is an electronic-based library catalog system that allows users to use computer terminals to search for information or collections. Of course, it has become common to provide computers in the library. However, there is a limitation in the number of computers with the need for library service management (Rodin & Nuraida, 2020).

Especially at the Library of SMA Negeri 3 Medan through the results of an interview with a user with the initials O revealed:

"regarding the statement that the search can be carried out together without disturbing each other, it is not optimal to occur, namely because the library only provides 1 computer that can access OPAC, maybe statements related to the search can be done"

together without disturbing each other, optimal if accessing OPAC through a smartphone".

The results of the interview with the second user with the initials S also said:

"if the search can be carried out together without disturbing each other, I have not felt the benefits because of the limited OPAC compiler in the library, maybe the library can add OPAC computer facilities in the library".

The results of the interview with the third user with the initials A also said:

"the search can be done together without disturbing each other through the website link, I myself did not know that there was a link to the OPAC library website".

The results of the interview with Mrs. Rhenny Ristanti, Librarian of the Library of SMA Negeri 3 Medan, stated:

"The search can be carried out together without disturbing each other, hampered by the lack of computers, coupled with the breakdown of non-OPAC computers for users and in the repair period, for the lack of OPAC access computers, the optimization of librarians is being done by continuing to propose additional computers to the school if the process is long, the librarian plans to make a mistake another computer as an OPAC access computer".

The OPAC Library of SMA Negeri 3 Medan can be used to retrieve search information collaboratively and without interfering with librarians, based on the results of user interviews and librarians said that it is being optimized by seeking to add an OPAC access computer in the library of SMA Negeri 3 Medan.

Multiple search methods can be used simultaneously, such as title, author, subject, publisher, year of publication, and so on (using Boolean Logic)

In an OPAC library, it is very helpful to facilitate the user experience with the information search system. Using OPAC, users can conduct searches through common ground, for example through titles, subjects, author names, keywords and so on. If library users search for library materials by utilizing Boolean Logic, the use of OPAC in the library will be optimal (Himayah, 2013).

However, unlike the Library of SMA Negeri 3 Medan, the results of the respondent's interview with a user with the initials O revealed:

"I don't understand the Boolean Logic method, so far I have been looking for the college I need by writing the title of the book or the author's name only".

That way, the use of OPAC has not been optimally carried out. Seeing these problems, the results of the respondent's interview with Mrs. Rhenny Ristanti, a librarian at SMA Negeri 3 Medan Library, revealed:

"Several search methods can be used simultaneously, such as title, author, subject, publisher, year of publication, and so on (using Boolean Logic) we optimize by still planning to hold coaching or socialization movements to users to instill an understanding of the use of OPAC to search for library materials library and easy optimization by pasting a guide on how to find collections with the Boolean Logic method technique".

Based on the findings of interviews with users and librarians, the author draws the conclusion, If the search does not work properly, the search can be improved by utilizing several methods

at once, such as Boolean Logic, and search by publisher, year of publication, title, author, and subject for which librarians do some optimization, namely by providing guidance to users related to the use of OPAC and pasting steps in the use of OPAC near OPAC computer. The librarian also revealed and revealed that he would target every optimization of the use of OPAC to the maximum as soon as possible, in order to facilitate the means of meeting information at the SMA Negeri 3 Medan Library.

There is no need to visit the library to do a search because you can do it from anywhere using a LAN (local area network) or WAN (wide area network) network

The operation of OPAC uses the principles of LAN and WAN networking. If a WAN is used for work connections between areas, a LAN is used for work connections within a single room or building. Having OPAC online increases the value of information and expands the user base for library users (Fitriastuti, 2020).

The results of an interview with Mrs. Rhenny Ristanti as the librarian of the SMA Negeri 3 Medan Library revealed:

"The Online Public Access Catalog (OPAC) at the SMA Negeri 3 Medan Library has used the LAN (Local Area Network) or WAN (Wide Area Network) network, this is done to optimize the use of OPAC inside and outside the library. Even so, not all users have access to OPAC outside the library. Because some users are not aware of the existence of OPAC in the library, users are still looking for the collections they need by coming to the library and asking the librarian".

Judging from the results of the author's interview with the librarian's mother, Mrs. Rhenny Ristanti, it can be concluded that OPAC in the Library of SMA Negeri 3 Medan can be accessed through outside and inside the library, but even so the use of OPAC in the library is still not optimal, so the librarian revealed that he is optimizing to continue to ensure a stable network before users use OPAC, but that way there are still problems faced by users when accessing OPAC.

As the results of an interview with a user with the initials O stated:

"OPAC libraries can indeed be accessed through outside or inside the library, but inside the library sometimes experience network constraints in accessing OPAC".

The results of the respondent's interview with Mrs. Rhenny Ristanti as a librarian stated:

"even though there are network constraints in the library, we as librarians continue to optimize by assisting and accompanying users in accessing using OPAC to find collections".

The results of the statements from the interviews by users and librarians can be concluded that while being someone who is responsible for the optimal use of OPAC in the library, librarians continue to optimize every problem that exists when utilizing the OPAC. Without the need to visit the library, related searches can be carried out from various locations using LAN (Local Area Network) or WAN (Wide Area Network) networks. Librarians have tried to make OPAC in the library accessible through outside the library, it's just that librarians have not developed too deeply because librarians are also exploring the OPAC feature, for that the optimization carried out by librarians is to continue to check the development of OPAC through the website and ensure a stable network so that users in the library room can access OPAC smoothly.

The use of OPAC is expected to improve library services, but from the statement above it is stated that some OPAC utilization has not run optimally, it is hoped that the use of OPAC will

improve library services, but as mentioned above, several ways of using OPAC as information retrieval in libraries have not gone well. This is in line with previous research findings that show that many users are still reluctant to find the information they need, using OPAC. The use of OPAC can thus improve library services. In contrast to the Library of SMA Negeri 3 Medan, from the results of the author's interview statements with librarians and users, the author draws the conclusion that the use of OPAC as a means of retrieving information in the Library of SMA Negeri 3 Medan has also not run optimally, librarians are in the process of optimization, several optimizations carried out by librarians in order to improve the quality of library services through OPAC so that it runs according to standards (Retnowati, 2023).

Obstacles and Challenges for Librarians in Optimizing the Utilization of Online Public Access Catalog (OPAC) in the Library of SMA Negeri 3 Medan

The process of realizing more optimal change certainly faces several obstacles and challenges. Based on previous research, especially from Septrina & Manita (2022) at the Bukit Tinggi City Public Library, there are a number of challenges in the use of OPAC as an information search tool in libraries. These include the lack of socialization of librarians with other librarians, the absence of computer devices for information search, and the lack of creativity of librarians in promoting and providing advice to library users about the use of OPAC as an information search tool. This also happened to the Library of SMA Negeri 3 Medan, based on the results of the respondent's interview with Mrs. Rhenny Ristanti as the librarian of the Library of SMA Negeri 3 Medan revealed:

"yes, of course in making an effort to realize something better, we must face obstacles and challenges, for that obstacle is in the operator facilities that we are still trying to add. If it is the most challenging thing in maintaining the system, where we who are not graduates of library science must master the features of OPAC so as not to miss the novelty and the challenge is second, promoting and introducing OPAC to users who are used to and comfortable to just ask the librarian without looking at the catalog first" (Septrina & Manita, 2022).

Based on theoretical insights and interviews with the librarian of SMA Negeri 3 Medan Library, several obstacles and challenges in optimizing the use of OPAC were identified. A significant challenge highlighted by the librarian is the difficulty in integrating OPAC with other systems, such as collection management systems. This lack of integration disrupts workflow, complicates data management, and hampers the overall efficiency of information retrieval processes. The inability to streamline these systems results in redundant manual tasks, increased error rates, and delays, ultimately affecting the user experience. This issue underscores a broader problem of technological compatibility and the need for comprehensive system upgrades that can seamlessly connect various library operations (Wang et al., 2022; Bharti & Verma, 2021).

Another critical barrier is the lack of expertise among library staff in effectively using OPAC, largely because the librarians do not have formal education in library science. Many have only attended brief training sessions on OPAC use, which often fail to provide the depth of knowledge required for proficient system management and troubleshooting. This gap in skills not only limits the librarian's ability to assist users but also diminishes the library's capacity to maximize OPAC's potential as an information retrieval tool (King, 2020). Without targeted professional development and ongoing training, these knowledge deficits persist, making it difficult to fully optimize OPAC and address emerging challenges in its usage. This situation calls for a strategic investment in continuous education and training tailored to the specific

technological needs of the library staff to enhance the overall effectiveness of OPAC, 2021) (Nzioka.

The librarian highlighted a significant challenge in using OPAC as an information retrieval tool: maintaining the system, especially in keeping up with the latest OPAC features. This requires librarians to constantly learn, explore, and master new functionalities, which can be time-consuming and demanding, particularly when resources for training or technical support are limited. Moreover, the librarian must also encourage and train users often students who may be unfamiliar or hesitant with technology to consistently use OPAC for finding the required collections. This dual responsibility of system upkeep and user education can strain the librarian's time and resources, potentially hindering the effective optimization of OPAC. Without proper support, these challenges can lead to underutilization of OPAC, impacting the overall efficiency of information retrieval in the library.

Conclusion

The study concludes that the use of the Online Public Access Catalogue (OPAC) in the Library of SMA Negeri 3 Medan is not yet optimal, facing several challenges and obstacles. Key issues include a lack of system integration, insufficient librarian expertise due to a lack of formal training in library science, and the need for constant system maintenance and adaptation to new features. Additionally, limited promotion and guidance for users, alongside insufficient OPAC access points, hinder the effective use of the system. Despite these challenges, efforts are being made to optimize OPAC utilization, such as increasing system accessibility, providing training, and continuously promoting OPAC use among library users. However, to fully realize the potential of OPAC as an effective information retrieval tool, targeted investment in librarian training, system upgrades, and user education is essential

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