Virtual Library Management Model

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Abstract. The library of the Police Academy (Akpol) plays a very important role in supporting the smooth learning activities of the cadets. However, the Akpol library currently still uses a conventional or manual system in management, providing library services, cataloguing books, borrowing, returning, and searching for information is done manually. Article 24 of law number 43 of 2007 concerning the development of higher education libraries that must be based on technology and information. Libraries with conventional systems cause various obstacles, especially access, limited access to information, low efficiency and cause cadets to have to come physically to the library besides having the risk of recording errors. In addition to not utilising and using information technology, it makes it difficult to monitor and evaluate the use of the Akpol library collection, which ultimately has an impact on the teaching and learning process. Article 14 paragraph 3 of Law number 43 of 2007 where the manager is obliged to develop library services using technology and information. This research uses a literature study method to identify the problems faced by Akpol library managers who have not used information technology and provide recommendations to the Akpol library manager to switch to a virtual library to implement a library based on technology and information systems. Through the modernisation of a virtual-based library system, it is hoped that a better learning environment can be created for cadets who can visit the library online and ease of access is expected to support efforts to improve the quality of education at Akpol, by following the rapid development of technology in the digital era can increase the insight of cadets.

Key words: Akpol Library, information technology, virtual-based

INTRODUCTION

A library is an institution that manages written works and collections of books, documents in printed form, recordings arranged in a room and has been arranged so that it can be used to meet the information needs of cadet students, lecturers, staff and society in general as well as a lifelong learning resource. The library is one of the needs in organizing education to support the learning process of research and development of science so that the library is also referred to as the heart of education.

Library as a learning resource is an effort and effort that can be used for the benefit of a learning process or activity directly or indirectly during the learning process. The library has a role as an information center, innovation center, and as a learning resource center. (Evawani, 2022). Furthermore, according to Sinaga (2007) every library can maintain its existence if it can carry out its role as follows first: the information center is an important place to provide accurate information sourced from a collection of books, magazines, newspapers, scientific articles which are sources of knowledge. Second: library innovation is a source of innovation to find creative ideas that can improve the welfare of life, for example information on aquaculture,

agriculture and others. Third: the learning resource center is a library related to increasing progress in the field of education as well as information on improving learning and teaching methods.

The library is an educational unit that ideally becomes the center of information and learning resources at all levels from elementary school to college to support the teaching and learning process. Law number 20 of 2003 concerning the National Education System article (35). The library is a room, part of a building or the room itself which is used to store books or other publications stored in a certain order for use by readers and books in the library are not sold Sulistyo Basuki, (1991: 3) public library as an agent of change. (Sinaga, 2004)

Libraries are also called agents of change, because libraries as learning resources can improve people's knowledge, skills and change the social status of society so that libraries are also called the heart of education. Law Number 43 of 2007 article (1) Definition of library. Akpol Library is a special library whose utilization is within an educational institution intended for cadets to support the learning process while for lecturers as research material and community

service for educators as a lifelong learning resource.

In the era of advances in technology and information, the Akpol library has not utilized and used information technology as a means of improving library services to be utilized by other tendik usser. the difficulty of accessing the Akpol library starts from the technology system used based on the local area network or less up to date technology so that the manual book so that the circulation service borrows library books manually this is due to not being integrated with information and communication systems so that it has an impact on services to library users.

The types of libraries that use information and communication technology are: conventional library conventional library, hybrid library hybrid library, bookless library bookles library, digital library digital library. (Harahap, 2018). The four types of libraries can be explained as follows:

a) Conventional library or (conventional library) is a type of library that collects printed or recorded works to meet the needs of library users in the fields of education, research and preserving information related to library services and recreation places for users, this is in line with the library law number 43 of 2007 article 1.

b) Hybrid libraries are those that provide library services from two sources: conventional services and services that utilize electronic resources.

c) Bookless library is a library that provides electronic services so that it does not provide printed books for libraries that will visit the bookless library, which is available as supporting equipment for finding information called e-readers (Purnomo, 2010: 173). This e-reader is a supporting tool to be able to carry out activities in the bookless library such as reading and downloading material.

d) Digital library or (digital library) is a library that utilizes technology and information ICT or ICT (Information And Communication) Technology this digital library designs printed books into automation making it easier for librarians to access search for information that can be in the form of text, images, video and sound and provide extensive services in digital access.

Libraries (digital or virtual libraries) provide services that are integrated into internet network information sources. Sulistyo Basuki. (2016: 188) states that automated libraries are one aspect of using information technology. (Ruslan, 2016) The library starts from the procurement of cataloging in library services for readers.

Saffady, (2014: 126) that a digital library is a library that manages all or only some of its collections in computerized form as a backup for printed forms. Fahmi (2004) digital library is a system of software and hardware that is utilized. The existence of a library is very important because it supports the implementation of education at every level of the education program.

Akpol implements a police applied vocational education program at the diploma IV level. The education program can be realized by setting targets that must be achieved including the planning, implementation and supervision stages with 3 (three) approach patterns namely Teaching, training and nurturing (Jarlatsuh).

Teaching is the process of interaction between students and educators and learning resources in a place or environment of educational institutions in the form of schools. (Hermawanto, n.d.) The same thing is also clarified by Sardiman, (2012: 12) states that teaching is the process of guiding students. In the teaching process carried out by lecturers who are termed in the Akpol environment as gadik or educators.

Learning (learning) is a process of changing one's attitude and behavior or personality in behavior and the quality of his personality which includes increasing skills, thinking abilities and other abilities. The same thing agrees with Ihsana, (2017: 4) "Learning is an activity in which there is a process from not knowing to knowing, not understanding to understanding from not being able to become able and achieve optimal results."

Training is an activity to improve a person's ability to have the skills and abilities to be able to carry out responsibilities or work and can increase performance productivity. Training can be in the form of improving human resource expertise training (Skill training), retraining, training for Akpol cadets to improve abilities related to the implementation of police duties such as traffic regulation training, traffic patrols, crime scene training, training in the police environment as a support for the successful implementation of police duties. Cadet training is conducted by Trainers or Instructors.

Fostering is an activity to take care of Akpol cadets carried out by active Polri seniors, caregivers work to assist cadets in guiding

attitudes and behavior as prospective members of the Police and fostering is carried out by Active Police members appointed as Platoon Commanders. Fostering cadets is guided by the parenting pattern by prioritizing the care, love, and nurture of cadets' lives as stipulated in Kalemdiklat Polri Regulation Number 1 of 2021. The Police Academy education program is guided by National Police Chief Regulation Number 14 of 2015 concerning the Police Education System and Law Number 2 of 2002 concerning the Indonesian National Police and Education Standards Article 35 of Law Number 20 of 2003

concerning the National Education System.

The existence of the Akpol library is still conventionally based or book-based and utilizing the LAN network The local area network does not function properly and is not empowered so that it does not meet library service standards and the development of communication and information technology ideally the Akpol library is easily accessible from various locations including from outside the Akpol environment. The results of data collection by questionnaire on library services can be seen in the table as follows:
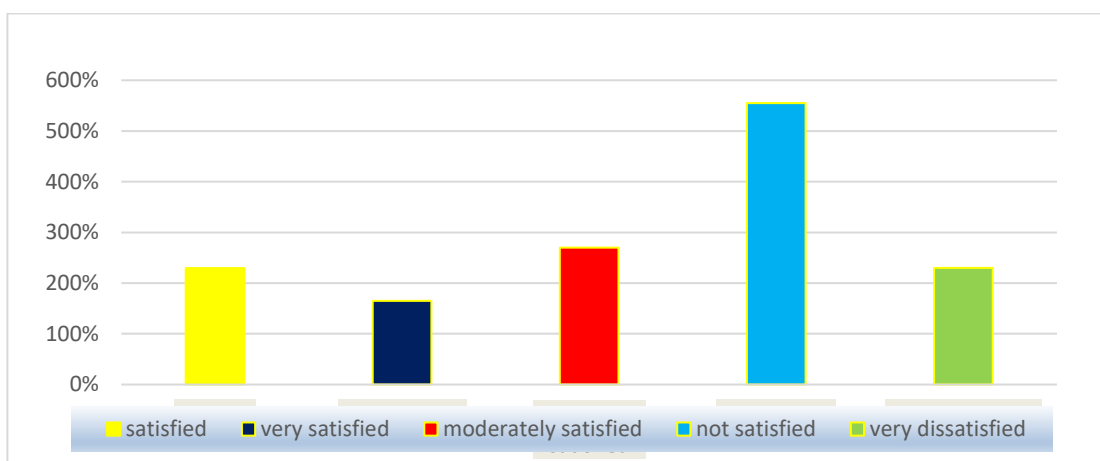

figure 1.1 akpol library service graph

Table 1 is a graph of answers to questionnaires distributed to cadets totaling 52 cadets or two classes about current library services. From the results of field findings and observations as well as distributing questionnaires to respondents, the following data were obtained: total answers are very satisfied as many as 203 responses stated with satisfied answers, 165 responses stated quite satisfied answers 270, responses stated dissatisfied answers 555 and responses stated very dissatisfied answers 230. From the picture of the results of distributing the data collection questionnaire, it is necessary to improve library services according to the needs at Akpol.

The Akpol library is a source of learning and a source of information as well as the heart of an educational unit that is useful for improving the quality of learning. Another problem is that the Akpol library has not uptodate technology and resources according to user needs so that it causes accessibility difficulties, so there needs to be a solution to overcome library problems at Akpol. The Akpol library is less well socialized and the manager has not innovated to switch to using technology and information networks in an effort

to improve library services to users so that it is less attractive to visit.

METHODS

This research uses a literature study method approach (ZED, 2008: 3) explaining that literature study is an activity of the Library data collection method, by studying reading and recording important parts and processing as research material.

RESULTS AND DISCUSSION

1. Akpol library management.

Akpol Library has not implemented good management to make planning, implementation and supervision. In line with what was conveyed by (Slamet, 2007: 7) in Tri Widada the planning function includes three which include planning, implementation and supervision functions. (Institute & Dan, 2019)

Geoge R.Terry, (1958) states that management is divided into four terms namely: *planning* (*planning), organizing (organizing),*

implementing (*actuating), and* supervising *(controlling).* Planning is a process of determining the desire to be achieved by determining the stages of how to achieve it. Akpol library employees or staff have not made a breakthrough regarding planning to improve library services so that it is not in line with article 11 of Law Number 43 of 2007.

Organizing is making groups and arranging the activities needed to achieve goals by involving human resources. SP Hsibuan (2017: 19) organizing is the process of determining groups and organizing various activities according to goals. Akpol library managers have not played a role in maximally dividing library service tasks so that they are not in line with article 14 paragraph 1 of Law Number 43 of 2007. *Supervision* is the process of evaluating the implementation of activities to match the standards to be achieved. the library manager does not carry out a good evaluation of library services so that he does not understand the weaknesses and shortcomings of how to improve library services as a result it is not in line with article 14 paragraph 5 of Law Number 43 of 2007.

Akpol Library has not been integrated with appropriate information technology so that it is less *updated,* in the current era of technological advances. The Akpol library LAN network needs to be developed and integrated with a wider network in order to increase the accessibility of library services *online* or *e_libbary* digitized or *virtual* online library data. declining visits and access difficulties are the initial conclusions, this can be seen from the results of the questionnaire answers that the response stated the answer was not satisfied 555 cadets and the response stated the answer was very dissatisfied 230 cadets this gap can be the basis for improving services by developing a service model.

Libraries need to change certain types of services that provide convenience for users in finding information to data sources as well as the benefits of completing work. (Sungadi, 2021). Virtual libraries also have an impact on users Chowdhury (2003) states the usefulness and ease of information, increasing the ease of innovation, increasing facilities for users, providing information that is very fast and *up to date*.

The private university study in Malaysia utilized the *Technology Acceptance* Model (TAM) as the theoretical framework. The study investigated the effects of system characteristics such as relevance, screen design and terminology on perceived ease of use and perceived usefulness

on intention to use the e-library system. (John Lee Kean Yew, 2018). The research conducted in this study examined perceived ease of use and usability.

Research on the development of IAIN Batu sangkar developed an *information and Communication Technology* (ICT) model based on Law Number 43 of 2007 article 19 paragraph 2 which reads: " Library development as referred to in paragraph (1) is carried out based on the characteristics, functions and objectives, and is carried out in accordance with the needs of the library and the community with the needs of the library and the community by utilizing information and communication technology." The results of the research stated that with the *e_library* library that utilizes technology and information, many benefits are felt by users by providing the advantage of speed of access without location constraints. (Yuliani, 2018).

Further research at Admajaya University Yogyakarta, this study examines the quality of the speed of the library usage process. (Dana et al., 2008). Akpol Library in order to improve access speed services, benefits for users with the TAM *Actual system use* model of system use (Vankatesh & Davis, 1996) in (Diamond et al., 2018). Therefore, researchers will develop a virtual library that is utilized and useful for *users (*cadets, Dasen and other educators). This is in line with the national standard of education article 35 paragraph 1 of Law Number 20 of 2003 concerning the National Education System and Permendikbud Number 3 of 2020 concerning National standards of higher education which includes national standards of education, plus research standards and community service standards. (Education et al., 2020).

Research by Weiyin Hong James Y.L. Thong, Wai-Man Wong & Kar-Yan Tam, (2015:97-124). Using the technology acceptance model (TAM) as a theoretical framework, this study investigated the effects of a set of individual differences (computer self-efficacy and knowledge of the search domain) and system characteristics (relevance, terminology, and screen design) on the intention to use the digital library. Based on a sample of 585 users of an award-winning university digital library, the results strongly support the utilization of TAM in predicting users' intention to adopt a virtual library and demonstrate the influence of important external variables on behavioral intention through perceived ease of use and perceived usefulness. The strongest influence on the perceived benefits

of the virtual library was the perceived ease of use and usability benefits. (Chuttur, 2009).

Research at UIN Sunan Kalijaga, the development of android-based interactive learning media to increase student participation and learning outcomes in PAI subjects at SMK class X semester 2, there is an increase in student participation, which initially students who access learning media from 55.75% to 75.5% so that it can be said that learning using effective media can increase student participation. (Aziz, 2015). E-library research provides a very consistent method of searching, obtaining information, and discovery for use by users. The similarity of research from UIN Sunan kali Jaga with researchers is the participation of media usage that utilizes communication and information technology in the TAM model of user participation Teo, (2011) mentions technology acceptance "....as *a usser's willingness to employ technology for the tasks it is designed to support." The* point of the above statement is that technology acceptance can be defined as the user's willingness to use technology to support tasks. (Fatmawati, 2015).

UNNES researchers entitled Utilization of digital libraries in student learning activities at the Library of the Department of Educational Technology. This research has something in common with researchers about the utilization of digital libraries in the learning process. The learning process is the interaction between educators and students and there is mutual communication to realize learning objectives. while the results of online library utilization are less effective by showing a less percentage category of 52.45%, this is due to an incomplete database, then visits to the library are in the sufficient category with a percentage of 64.87%, book reader activities and circulation are in the sufficient category with a percentage of 58.53%, activities carried out by the library reach 70.59% in the sufficient category, overall activities and utilization of the *online library are in the* sufficient category with a percentage of 61.54%. (Riyanto, 2013).

The application of the *Technology Acceptance Model* (TAM) can be used to test the understanding of learning media based on interactive multi media or communication and information in learning development *research is* used to improve the learning and teaching process with the *research and devolopment research* method, namely research that produces certain products by making learning media using interactive multimedia technology, communication and information, to measure products using questionnaires aimed at measuring learning acceptance with *Attitud toword using* and *actual system use* (Davis, 1989.p.24) in (Chuttur, 2009).

Fred Davis and Vankatesh; (1996) explain that there are three factors that influence the use of a Davis system, namely: (1) perceived usefulness can improve performance *Perceived usufulness*, (2) *perceived ease of use* of the system *perceived ease of use,* (3) intention to use the technology created *intention to use.* Improving library services through the use of technology is in line with article 24 of Law 43 of 2007 and Regulation of the Head of the Library of the Republic of Indonesia Number 13 of 2017 concerning National Standards for Higher Education Libraries.

2. *Virtual* library management theory.

Virtual library management theory is the concept of *virtual* library development. A *virtual* library is a place to collect, manage and provide access to collections on information resources in the form of virtual services, for example *e-books*, electronic journals based on *online* data with the aim of meeting the needs of *users*. Management theory is the concepts, principles, frameworks and approaches used to explain, understand and manage organizational activities in the context of management.

Management is all efforts to mobilize resources for a predetermined goal while management according to Griffin, (2004: 7) the process of planning, organizing, directing, and supervising the efforts made by members in the organization by utilizing the resources available in the organization to achieve goals.

George R. Terry. 1958 in Sukarna, (2011: 10) management is divided into four basic functions, namely: Planning (planning*), Organizing (organizing*), implementation (actuating*),* and supervision (controlling*).* Planning according to George Terry is a process that exists in the mind to organize activities that will be carried out to achieve organizational goals in this activity involves the creation of maintaining organizational operations by setting goals, determining the main tasks in the organization, dividing tasks in detail, allocating available human resources and providing direction to carry out tasks.

Management according to Hasibuan, (2014: 2) states that management is the process of achieving goals which include planning,

organizing, moving and controlling actions to achieve goals by involving human resources and other resources. A *virtual* library is a data-based library stored in an electronic system and can be used using information and communication technology facilities. Management according to George R. Terry in Sukarna: (2011: 3) states that it is the achievement of goals that have been set with other people, process-oriented management that requires human resources, knowledge and skills.

Management according to Torang, (2013: 165) explains that the science of managing to achieve goals through a mutually agreed process in order to realize the appropriate results. From the description above, it can be concluded that management is a guide for leaders and managers to understand a process of achieving goals by involving human resources, knowledge and skills so that the process runs effectively and efficiently. From several opinions on management theory, library management is an activity, process and method used to manage libraries effectively and efficiently which involves planning, organizing, controlling and supervising library services in an effort to achieve goals by involving people, information systems and resources.

Planning according to George Milkovich and Paul C. Nystrom in Taufiqurokhman; (2008) planning is the process of forecasting, developing, implementing and controlling to ensure that the company has the right number of employees with the right placement. Planning according to Bintoro Tjokroaminoto in Husaini Usman (2008) is the process of preparing activities systematically to achieve goals.

Planning according to Widjojo in the State Admnistrasi institution (1985: 31) planning includes two principles, namely: 1). Making conscious choices about the goals to be achieved within a predetermined time. 2). The choice between alternatives that are efficient and rational to achieve goals that include a certain period of time and methods that have been chosen.(Taufiqurokhman, n.d.).

Planning according to Becker (2000) in Rustiadi (2008: 339), Alder (1999) is a process of determining what will be achieved in the future by determining the stages to achieve. From some of these descriptions, it can be concluded that planning is a process in the form of activities that must be carried out to achieve a predetermined future goal to be achieved.

Organizing is directing human resources to work effectively in the organization according to the responsibilities given. Organizing is also the process of dividing work according to its field of duty so that goals can be achieved effectively. Stphen F. Robbins states that an organization is a unit that is established over a long period of time, with two or more members and works together and is coordinated with a predetermined structured work pattern.

David Cherrington defines organization as having a regular pattern and which is established by people and has a group of members in realizing goals. (Syukran et al., 2022).. Zazin Nur explained that the organization is the path to achieving goals. From the description of the above opinion, it can be concluded that the organization is a collection of two or more people who have common goals and divide tasks and responsibilities according to their abilities to realize the goals to be achieved effectively and efficiently.

Implementation is moving and influencing others to work in groups in achieving goals. Geroge R. Terry in Sukarna, (2011: 82) states that Activator is the arrangement of all group members so that they want to excel and work hard to achieve goals voluntarily according to the managerial planning of organizing efforts. Implementation according to Abdullah, (2014: 151) is a process of a series of activities determined by the policies set out in an operational strategic step decision to achieve goals.

According to Mazmanian and Sebatier, (2014: 68) states that implementation is the basic decision of a policy which is usually in the form of rules, orders and laws. From the description above, it can be concluded that implementation is a process of making strategic decisions to be operationalized in achieving goals based on joint decisions or based on regulations or orders. Supervision is the process of monitoring, assessing and reporting for the success of achieving goals.

According to Irfan Fahmi, (2012.139) defines that the supervision of the process of monitoring, assessing and reporting plans on goal plans that are carried out corrective in order to perfect further tasks. Masry, (2004: 61) supervision is the process of a leader wanting to know the results of work carried out by his subordinates according to orders, goals, policies that have been determined.

Virtual library management includes planning, organizing, mobilizing and supervising related to library management and managing,

directing, guiding and controlling the implementation of library service tasks, Iskandar, (2016) states that library management is needed to increase reading interest in the educational environment. (Susinta & Senjaya, 2022).

From the definition of management which includes planning, organizing, implementing and supervising, it can be interpreted that *virtual* library management is an effort to achieve goals by involving human resources, information systems used and virtual library service standards which include regulating, directing, guiding and controlling to improve library services.

Knowledge management includes the process of collecting data, storing data, managing data and various knowledge in an organization including library management knowledge. The virtual library is the main source of knowledge in digital form, so it is very relevant to the principles of management.

3. Definition of Virtual Library

Virtual libraries are virtual or automated libraries that manage various collections of reading materials in the form of *files* stored in computerized devices and can be accessed or displayed and presented quickly, also functioning to complement printed book collections. Virtual libraries utilize the internet network sourced from the WWW (*Word Wide Web*) as a distributor of information needed by users. Automated *virtual* libraries have collections in the form of *files* or digital that can be displayed virtually with online networks, namely: 1) Digital libraries are all data *files* in digital format; 2) *Hybrid* library is a collection or library collection in print and available digitally; 3) Automated conventional library which is a library with print and automation services; 4) Conventional library is a library with manual services only in printed form. *Virtual* library services go through the stages of the digitization process, storage process, data access and search process, *uploading* or *uplouding* process. The *virtual* library service process can be explained as follows:

a) The process of digitizing library documents is the process of converting printed library materials into electronic documents or known as digitization;

b) The storage process is the process of storing library data that has been converted into documents and entered into a computer database that can be redisplayed in virtual form;

c) The process of accessing and searching data is the process of searching for library data that has been documented electronically into a computer database and can be redisplayed for user needs;

d) The upload or *aploading* process is the process of entering library document data that has been converted into digital form which is usually in the form of a *PDF file* containing *full text* containing pages, titles to attachments and can be accessed via the internet network and a limited *Local Area Network* (LAN) network which both use server facilities.

4. Types of virtual libraries

There are 3 (three) types of virtual libraries, namely: *Asynchronous* reference service which is a learning model that utilizes *e_learning* media by recording, or video and service sources in the form of *files* (PDF) that can be downloaded by users according to user needs which can be accessed as needed as for the forms and types as follows:

a) Email is a librarian service to users or users about the *reference* service desired by the library this email service is sent in the user's *email*.

b) A *web* form is where the user fills out a form with specific service needs and the user must provide their name, *email* address and then send it to the library via email and the library service will send them what they need.

c) Request a library service with an internet-based website with a WWW site address (*wold, wide, web*) answers will be in the form of *Full text (*complete tek) *and page images*. (page image). Full text includes easier data processing and manipulation due to the small size of the data arranged in SGML (*standard generalized markup langunge*) format. Library *page image* services in the form of page images.

5. Virtual library management

The virtual library management process requires librarians who have special skills in order to carry out tasks according to the library service process, so that these skills do not become obstacles in virtual library services. Saleh, 2014 in Yuyun Widayanti, 2015 that a virtual library is a library that manages all or part of the book collections in computerization. (Mulyadi, 2016). In managing a *virtual* library that requires several stages including digitization, storage stage, easy access stage and can be displayed or *uploud* again, while these stages can be conveyed as follows:

a) The stage of *digitizing* or documenting the library the process of making library documents converted in digital form from printed materials in the form of books, magazines, journals and so on which are then converted by a machine called a *scanner* from books into electronic documents or e-libraries.

b) The storage stage in this stage performs storage by entering the library data that has been *scanned* into documents stored in a computer system that can be accessed in the form of files or in the form of data.

c) The stage of accessing and searching library documents in this stage is the process of making how libraries that have been in the form of *files* or stored data can be re-displayed via a computer if the computer has been available with an internet network, it will facilitate document searches.

d) The *uploud* stage or the document input process in the virtual library metadata, the data that has been scanned in the form of a *pdf file* in *full text* form which contains the complete contents of the document displayed including the number of pages, titles to attachments that have previously gone through the document editing process can be redisplayed with a local *area* network or internet network.

6. Ease of library access.

Davis (1989) ease is a situation where someone believes they will use a system without requiring certain conditions. Changes in library services require adequate facilities and infrastructure to support service improvement in order to provide easy access which will have an impact on time efficiency so that the library must be able to provide information that is accurate, fast and can be accessed simultaneously by more than one user.

Ease of access will also increase the number of library visitors to *browse, download* and work on assignments given by lecturers to cadets. Ease of access is not limited by space and time, it can be done anywhere and anytime.(Arum & Marfianti, 2021). The ease of library access will make it easier for cadets to complete structured assignments from lecturers, structured assignments are assignments from lecturers to cadets about material to be taught with reading sources or modules that have been prepared. By providing structured assignments, cadets will utilize the library *online* via the internet network or *off line* visiting the Akpol library.

The police library should apply technology and information to improve accessibility by developing conventional libraries into virtual-based libraries which is one of the important innovations to improve educational services for cadets digitally because it allows cadets and other users easier access to better educational resources. The use of technology to increase the accessibility of educational resources for police cadets and facilitate the learning process. The use of technology can also encourage cadets to utilize technology in the learning process because the virtual library provides *e-journals & e-books in s.* Digital libraries provide electronic collections that can be accessed easily and quickly online by users. (Risparyanto, 2022). Libraries can help complete school assignments in the learning process. (Fauzia, 2011). Digital libraries can be a suggestion for distance learning research results (Hanelahi & Atmaja, 2020) so virtual libraries are very supportive in learning. (Prasetianingsih & Hariyati, 2019).. Library utilization during the Covid 19 pandemic is a must because the learning process uses online or distance learning.(Hadiapurwa et al., 2021).. The positive effect of digital library utilization on student achievement at Sebelas Maret University Surakarta (Widya Karunia & Octoria, 2024)..

Changing the Akpol library which is still conventional to virtual or e-library is very important, this will support the learning process and this is also the result of previous research. Digital library is the application of information technology as a means of storing and displaying resources and can be disseminated. (Habibillah et al., 2022). The following are the results of research on the use of libraries that utilize technology and information as a learning resource and improve learning outcomes.

No.	researcher name	Results
1	Hikamudin et al, (2019)	The results of the increase in thinking encourage the level of student success from 42.5% to 87.5%.
2	Purwanti R, (2017)	The result is a significant increase in learner knowledge
3	Andrian K (2009/2010)	There is a significant effect on learning achievement 2009/2010 in schools in bantul
4	Dwi Widya K. (2024)	The positive influence of digital libraries on student achievement at Surakarta State University
5	Meutia dewi (2015)	Library facilities have a significant effect on learning achievement

CONCLUSION

This research aims to develop a Virtual-based police academy library, by developing management steps to improve service quality by presenting a virtual-based management model that can be accessed from the environment and outside Akpol. This is based on the results of a field survey by interviewing cadets and lecturers and analyzing the results of the interview so as to find that Akpol's library services have not met the library service standards as stated in article 14 paragraph 3 of Law Number 43 of 2007. From the results of the preliminary study it was found that cadets and lecturers could not access the library online either within the environment or from outside Akpol if they did assignments from lecturers and those who needed references or references had to come to the library during library service hours manually book, the results of observations of researchers in the Akpol library have not fully met the national library standards, this can be seen from the display when accessed via the Local area Network network has not displayed information services as needed, this happens because the Akpol library has not been updated and has not used technology and information as needed so it is very necessary to change library service management that is appropriate and as needed and built with a virtual-based library management model to be easily accessed by users as a learning resource by utilizing information and communication technology that requires a virtual-based library that can be accessed online in the Akpol environment and from outside. In creating a service model, researchers involve virtual library design experts, technology and information experts and Akpol library managers as managers.

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