

# The Ability to Manage Information among Librarians of Senior High Schools in Bantul Regency to Support Information Literacy Program

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**Abstract**—The rapid development of information and communication technology (ICT) demands an active role from librarians to obtain, utilize and to meet the user's information needs. Consequently, the librarians should be equipped with information literacy. This study aims at describing the librarian's ability to utilize the information needed by users in the senior high schools of Bantul Regency. This research can be categorized as quantitative descriptive. The population in this study was the school librarians in Bantul Regency. The questionnaire was distributed to collect the data, while the content validity was used to test the validity of the data. The data were analyzed descriptively with percentages. The research findings showed that the librarian ability in utilizing information gained the percentage of 89.96% which can be categorized as "very high" or "very good". The activities of information utilization consisted of processing, accessing, clarifying, sorting, classifying and summarizing information needed by users. Meanwhile, to optimize the school information literacy program, the librarian should be completed with hard skills (technical knowledge and information technology) and soft skills (interpersonal and communication skills).

**Keywords**—*information utilization; information literacy program*

## I. INTRODUCTION

Indonesian people have been currently in a transition period from offline to online. This digital transformation has influenced various aspects of human life which changes values, perspectives, and community behavior. It raises the concern of policy-makers, economists and industry leaders to enhance ICT infrastructure to support the ability to interpret and understand content from various contexts among the society. The main characteristic of the information society is that all community activities are based on knowledge. The civilization change into a knowledge society requires the mastery of 21st-century skills, i.e the ability to understand and utilize information and communication technology or ICT literacy skills.

Education plays a crucial role in building knowledgeable communities by promoting (1) technology and media literacy; (2) effective communication; (3) critical thinking; (4) problem solving; and (5) collaboration. The existence of ICT can

positively impact education quality when it is integrated with the learning process.

In the 21st century, there are many factors that can prompt the young generation in triumphing their academic goals, such as the availability of clear, complete and accurate information. The common characteristic of today's digital era is marked by a wide range of internet. However, internet is still being a new thing for several communities, even many regions are still categorized as blank spot areas. The educational services in urban areas have already completed with full internet access, but in many rural areas, internet still becomes unfamiliar thing, even many schools are difficult to be reached through telecommunications infrastructure. It urges the development of information facilities to support the progress of education in order to produce open-minded generation.

The six stages of problem solving in the Big 6 information literacy model developed by Michael B. Eisenberg and Robert E. Berkowitz are also applied in Indonesia, proven to bring results for students to be able to build ways of thinking that make it easier for students to do their assignments and understand the processes they take to find and use information obtained. The six stages of problem solving in Big 6 include Task definition, Information Seeking Strategies, Location and Access, Use of information, Synthesis and Evaluation [1].

This information facility can support the activities from various school parties, such as the Principal to support the school management, the teachers to prepare teaching materials, learning strategies, and professional development as well as the students to help their assignments or material understanding. As founded by Kurniawati, et.al in their research results that in general the teachers and students' opinions about the ICT are helping them 1) to find alternative learning resources; 2) to clarify the material delivered by the teacher; 3) to have better learning process; 4) to have deeper insight; 5) to know and follow the development of material and information related to the field of study; and 6) to enhance students' ICT literacy. Information literacy refers to the ability to know the information needs through identification, discovery, evaluation, and effectively use of information to solve the problem. The library utilization is often associated with

information literacy that is applied almost at every level of education, and it has been a basic competency that must be owned not only by students but also teachers, and school principals.

Bundy suggests three main elements in information literacy, namely 1) general skills including problem solving, collaboration, cooperation, communication and critical thinking; 2) information skills including information retrieval, use of information and information technology capabilities; 3) values and beliefs include using information wisely, and ethically responsibly and with community participation [2]. Information literacy encompasses knowledge of one's information concerns and needs, and the ability to identify, locate, evaluate, organize, and effectively create, use and communicate information to address issues or problems at hand; it is a prerequisite for participating effectively in the Information Society, and is part of the basic human right of life

– long learning UNESCO Horton. The success of literacy can be realized with support from facilities and human resources, especially the library and its librarian. Actually, school libraries have begun to receive attention from the government where every educational institution has been required to optimally manage its library.

The principle development of the library is "Never Retreat" meaning that keeps moving forward and never giving up. However, developing the library seems to be a big challenge for the librarian, especially to provide excellent services for the users. Creating interesting libraries to attract users requires time since it is related to the behavior and attitudes transformation towards information and knowledge mastery.

In line with the advancement of current information and communication technology, it urges the librarian to be actively involved in obtaining and disseminating information in the libraries they manage. Librarians can provide online information through telephone, radio, television and internet networks. The examples of information literacy programs offered by librarians are 1) providing a reference, 2) helping confused users, 3) giving explanations to users, 4) providing internal or personal discussion, 5) having casual interaction with students. In fact, few school libraries have done those five activities, so it is crucial to have research on the librarian's ability to implementing information literacy.

Based on the observation results in the school libraries of Bantul Regency, it was found that the information literacy program had been carried out in several schools to prepare the students to independently find and obtain the information needed, but the implementation experienced some obstacles both from the internal and external aspect. It is indicated by the fact that the students find it difficult to find the materials in the library and to use information technology to collect information. Moreover, some schools have not provided yet the type of information technology to support information literacy activities. Moreover, the lack of ability and understanding among librarians contribute to lower information literacy. Those conditions stimulate the students' unawareness of information literacy. The librarian must have the ability to manage and to trace information from various sources in order

to provide the relevant information quickly, easily, and accurately.

#### A. *Basic Concepts of School Libraries*

1) *The definition of schools library:* According to Law No.43 of 2007, the library is defined as an institution that manages the collection of written, printed, and/ or professional engineering works with a proper system to meet the needs of education, research, preservation, information, and recreation for the visitors.

2) *The purpose of schools library:* Bafadal states that the function of school libraries is not just collecting and storing library materials, but its existence is expected to help students and teachers to complete tasks within the teaching and learning process [3]. Yusuf & Suhendar mention that the purpose of a library cannot be separated from the purpose of school education as a whole, particularly in providing basic skills for students, and preparing them in the learning process [4].

3) *The activity of schools library:* Yusuf and Suhendar mention that there are three main activities of the school library, namely collecting, processing and disseminating all kinds of educational information to students and teachers. The three main activities of the school library that can be explained as follows [4].

a) Collecting, utilizing, maintaining, and continuously developing materials or information sources in any kind of form, such as books, magazines, newspapers and other types of collections.

b) Processing the information sources by using certain systems and methods since the materials arrive at the school library until those are ready to be presented or served to their users, i.e. students and teachers within the school environment. These activities include the work of inventing, classifying, cataloging, labeling, making loan procedure and others.

c) Disseminating information to all parties based on their interests including reference and information services, loan services, promotion services, guidance services to readers and so on as well as services to students and teachers in finding information related to their areas of interest.

#### B. *Information Literacy Concept*

The information literacy is the ability to search, evaluate and use information needed effectively. As mentioned by Bundy (2001) that the essence of information literacy is a set of skills needed to search, trace, analyze, and utilize information. It refers to the ability to access, evaluate, and use information from various sources [5].

In the early 1990s, the information literacy proposed by the ALA mention information literacy as a set of abilities required by individuals to recognize the need for information to locate, evaluate, and use effective needed information [6]. "Information literacy is defined as a person's ability to identify the information they need, access and find information to evaluate information through an effective and ethical manner.

One way to build information literacy in libraries is through user education. According to Hak that education is usually always committed to strengthening library collections and teaching about their use [7]. User education is the process of making library users aware of the extent and number of library resources, services and information sources provided to users. In addition, it is also taught how to use library resources, services and information sources as well as explaining information retrieval mechanisms and how to exploit available resources.

*C. Maintaining the Integrity of the Specifications*

Hartono mentions that the ability of librarians on information literacy is as follows [8].

- 1) The ability to look for information by identifying user’s needs and knowing the type of information used by users.
- 2) The ability to trace information from various sources of information.
- 3) The ability to use, assess, and sort information.
- 4) The ability to create information.
- 5) The ability to organize information.
- 6) The ability to disseminate information.

**II. METHODS**

To have a clear description of the ability to use information among librarians related to their information literacy programs, the study employed a quantitative descriptive approach to reveal the data about the ability to use information from school librarians in information literacy programs in school libraries. The research site of Senior High School in Bantul Regency. The population of this study was 19 schools, 37 subjects were library managers consisting of librarians and senior high school library officers in Bantul. The questionnaire was employed for the data collection technique, while the content validity was used to test the validity of data. The data were analyzed using percentage techniques with the following formular:

$$P = \frac{F}{N} \times 100 \% \tag{1}$$

Explanation:

P: Percentage score F:

obtained scores N:

Maximum scores

The conversion of quantitative data from the analysis is based on the categorization as follows:

TABLE I. DATA CATEGORIZATION

Score interval	Criteria
81 – 100%	Very high / very good
61 – 80%	High / good
41 – 60%	Moderate
21 – 40%	Low / Bad
0 – 20%	Very low / Very bad

**III. RESULT AND DISCUSSION**

The description of data on the aspects of the librarian efforts in using or utilizing information based on the research results among 37 librarians was 89.96% that can be categorized as “very good”. It can be concluded that most of the librarians have made efforts to use the information to implement information literacy. It consisted the activities of processing, accessing, clarifying, sorting, classifying and summarizing the information needed by users. The ability to use/utilize information is one of the skills that must be possessed by librarian in implementing information literacy. The following table presents data on the aspects of librarian's efforts to use/utilize information in senior high schools of Bantul Regency, which consists of 7 indicators.

TABLE 2. FREQUENCY DISTRIBUTION ON THE ASPECTS OF THE LIBRARIAN'S EFFORTS TO USE/UTILIZE THE INFORMATION

No	Items	Yes	No	Numbers
1	Processing information that has been found by users immediately	89.19%	10.81%	100.00%
2	helping users to access information effectively and efficiently	89.19%	10.81%	100.00%
3	Clarifying all information needed by users, and recording the information as library data processing material	86.49%	13.51%	100.00%
4	Making clarification by comparing the information needed by users from various sources	86.49%	13.51%	100.00%
5	Sorting the relevant and irrelevant information	91.89%	8.11%	100.00%
6	Making information classification	94.59%	5.41%	100.00%
7	Summarizing the information needed by users	91.89%	8.11%	100.00%
<b>Average</b>		89.96%	10.04%	100.00%

Based on the results above, it shows that all indicators can be categorized as “very good” (> 84%) and the highest score was in the indicator of information classification with 94.59%. Meanwhile, there were two indicators that had “very good” category but ranked as the lowest percentage (86, 49%), i.e. the indicator of clarifying all information needed by users, and recording the information as library data processing material, and making clarification by comparing the information needed by users from various sources. The details can be seen in the following picture.

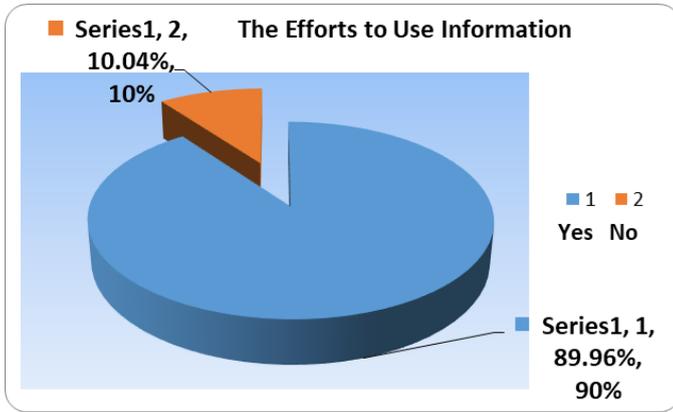


Fig. 1. The average diagram on the efforts to use information

The figure 1 above shows that the average effort among librarians in implementing information literacy in senior high schools throughout Bantul Regency on the aspect of using information can be categorized as “very good” (89.96%).

Librarian has been the key factor to succeed the role of schools’ library to enhance information literacy. Innovation and creative ideas make a school library becoming efficient and convenient for students and teachers as users. According to Elva Rahmah, the ability of school librarian that need to be improved in utilizing information including (1) information management skills that consist of defining the need of information, identifying the users’ needs, recognizing various types of information used by users, placing information needed in the references framework and so on. (2) information and communication technology skills that enable librarians to use various information and communication technology tools to support all working processes [9].

The current library is demanded to be able to change according to the social changes of the users. Since the rapid IT development, it has completely changed the social character of the users, especially the information needs, the way of interaction, competition atmosphere, and others. With the advance application of information technology, librarians combine between hard skills, such as technical knowledge and information technology and soft skills like interpersonal and communication skills. The excellent library services should be able to give users’ satisfaction. It means all information that has been found should be immediately processed according to the existing rules so that those can be presented and utilized directly by the visitors. The librarian tasks in providing information services are in the form of assistance and guidance to users, so they can access the information needed straightaway. To make information, an important skill as librarians is information repackaging that is aimed to facilitate the users in utilizing information.

According to Daryono several skills that should be own by librarians to help users in finding and using information are sharing/ dissemination as follows [10].

- 1) Finding information process including:
  - a) Defining information needs by identifying user needs, various types of information used by users, placing the information needed in a reference

framework, linking information needed to the knowledge field, and defining information problems using a variety of question and answer skills.

- b) Searching by having the basic skills of information retrieval as well as the ability to navigate the system and electronic resources, finding out basic knowledge from various sources of information that are not available in electronic systems through printed material, people, and others, knowing the sources of information both external and internal, determining reliable sources and providing added value.
  - c) Formulating the searching strategy that requires basic and comprehensive knowledge of the right resources and structure. In this case, the knowledge of the subject matter is also necessary. Other skills are related to the ability to discuss ideas for gaining inputs, select search tools, identify keywords, concepts, subject headings, descriptors, and criteria for evaluating information sources.
- 2) Using information containing the process that involves.
    - a) Evaluating the obtained information by determining its authority, novelty, and reliability, relevance, quality.
    - b) Assessing the obtained information by seeing the main ideas and keywords and distinguishing facts, opinions, propaganda, point of view and bias, illogical facts.
    - c) Integrating information from various sources by classifying information, recognizing the relationships between concepts, identifying conflicts and the similarity of various sources.
    - d) Sorting information that refers to the ability to sort and select the information that is considered unnecessary.
    - e) Interpreting information by summarizing and identifying the details of the relevant information, organization, and analysis of the information, comparing with the source of the problems that want to be solved.
    - f) Making conclusions
  - 3) Information Organization. The skills that must be own by librarians to help users to find and use information are:
    - a) Abstracting as the ability to make a summary that allows the reader to clearly capture the relevance and importance of the information to be conveyed.
    - b) Indexing by using the existed classification or taxonomic systems (thesaurus, subject headings).
    - c) Conducting retention by making review including providing information versioning system.

#### IV. CONCLUSION

Based on the research findings, it can be concluded that the librarian ability in utilizing information in the library gained a percentage of 89.96% which can be categorized as “very good”. It means that the school as a whole has carried out the activities of processing, accessing, clarifying, sorting, classifying and summarizing information needed by users. Meanwhile, to optimize the school information literacy program, the librarian should be completed with hard skills (technical knowledge and information technology) and soft skills (interpersonal and communication skills). Further research will be directed at the application of information literacy in learning activities at school, namely applying the general skills needed by students in successfully solving information problems.

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