

Students' Information Seeking Behaviour at the Library of Sekolah Tinggi Ilmu Kesehatan (STIKes) William Booth Surabaya

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Abstract: Diverse information needs require students to seek information by themselves. The purpose of this study is to know how library users find the source of information they need and the obstacles they encounter in making the appropriate information discovery. This research is based on the formula stated by Ellis revolving around eight stages of information discovery behaviour: starting, chaining, browsing, differentiating, monitoring, extracting, verifying, ending. This study applied descriptive quantitative method by distributing questionnaires to 100 respondents. The samples were taken using accidental sampling on STIKes William Booth students. The results of this study show that students, in conducting a search, first students prepare a description of the information they need, following that, chaining with keywords is done. After those steps are done, the students then browse and take 1-5 sources of information. To determine the quality of information they select by looking at the author's background and developments. All information that has been selected will be re-checked again in case there are any incorrect information. The information seeking process ends when the findings can fulfill the needs of the users. The obstacles that can be found in the students' information seeking behaviour is the laziness of students, foreign languages ability, limited time to visit the library, and less strategic locations.

1 INTRODUCTION

Users who visit the library can be considered as people who need information, however, not everyone who would like to fulfil their needs of information will visit the library. This is due to the development communication device that can be used to explore information as widely as possible. Therefore, libraries are expected to improve its services for the convenience of users in fulfilling their needs of information (Hernoko *et al.*, 2022). Kuhlthau (1991) describes that information needs is interpreted as the need that gradually arises from a vague awareness of something that are lacking, and at a later stage develops into the desire to require sources of information that will contribute to their ability in understanding a meaning (Kuhlthau, 1991). The information produced by the library is convincing in terms of value and quality (Romadhona *et al.*, 2022). Library is expected to pay attention to several supporting factors and obstacles for users who search for information. This can be

used for library evaluations and developments in fulfilling the needs of the users.

The Library of *Sekolah Tinggi Ilmu Kesehatan William Booth* (STIKes, School of Health and Science) has collections related to the medical world. The library is facilitated with OPAC and also a subscription from paid journals. The average number of visitors is around 35 to 40 per day as seen from the visitor's book (Sunyowati *et al.*, 2022). As many as 50% of students visit the library to conduct research, the rest to borrow, return, or to extend their return date (Subagyo, Chumaida and Romadhona, 2022). The library has 6200 collections, of which 1,000 are printed copies of journals, 500 copies in digital journals, reading collection of 4,700 which 25% also includes reference collections. There are 120 students from three classes in a study program, multiplied to three majors. The library also stores gray literature in the form of theses, research reports, and student works in printed form and compact disk (CD). To meet the information needs of students,

effective steps are needed to find good and relevant sources of information.

Based on the above phenomenon, this research aims to study the information discovery behaviour of students in the library of STIKes William Booth Surabaya, from the starting (first steps in making discoveries) up to the ending process (how users end their process after obtaining the necessary sources of information).

2 LITERATURE REVIEW

2.1 Information Discovery Behaviour

Information Seeking Behaviour is an attempt to find information's with several objectives because of the need to fulfil certain goals. Regarding this act, one can only interact with the manual information storage (Newspaper, Library) or computer-based (such as world wide web) (Wilson, 1999). Information seeking behaviour is driven by several factors. Rachmawati and Winoto (2015) state that what influences information seeking is one's view of the risks and rewards that will be faced if he does an information search (Silvana and Winoto, 2015). The process is started when a person prepares to seek any information discovering it, until the process is completed and the information needs are met (Yusuf, 2010). The importance of the information needed will also determine the information seeking process (Romadhona, 2022).

Al Saleh (2004) states that information seeking behaviour does not only depend to offline information institutions, but from technology as well. Information discovery process that provides convenience for the users tends to become a choice nowadays (Al-Shaleh, 2004). Subjects (humans) pose as either the information seeker or informants. Kaniki (1992) states that that information seeking behaviour is very much influenced by environmental factors such as situations in decision making, methods on answering questions, factors obtained in the field, and the ability to understand what is sought (Kaniki, 1992).

One model of information seeking behaviour was stated by Ellis, where there are eight steps in the process: *starting* (information seekers preparing for discovery), according to Belkin in Nicholas (2003) information needs increases when one is aware of the gap between knowledge and results in solving problems; *chaining* (information seekers usually

start with notes containing what information to browse or keywords to be entered in the search engine); *browsing* (structured or unstructured information seeking activities) (Nicholas, 2003), Dervin in Laloo, (2002: 12) states that information needs is required by someone to develop their thoughts in order to overcome various gaps and problems; *differentiating* (information seekers begin filtering information sources to determine the quality of the information, whether the sources are clear and precise or not) (Laloo, 2002); *Key informants* are needed to provide insights regarding the problems being discussed, but also reinforcement, or correction of results that have been obtained from other informants (Yin, 2009); *monitoring* (the information seekers monitor the development of the information sought); *extracting* (the information seekers begin to take the source of information that they have found and is sure of the quality after the previous stage); *verifying* (this process involves checking and evaluating information sources so that there is no misinformation in them); *ending* (the final phase where the information seekers have ended the discovery process) (Ellis, Cox and Hall, 1993).

When seeking information's, there is always a chance that the information seekers will face various obstacles. Obstacles may arise due to individual, social, and environmental factors (Wilson, 1997).

3 RESEARCH METHOD

This research applied quantitative descriptive method, with the data collected by distributing questionnaires to 100 respondents. The collected data is then analysed in the results of the study. Data retrieval technique applied *accidental sampling* covering the active students of STIKes William Booth Surabaya. All data is obtained from field surveys will be discussed using descriptive analysis to describe the results.

4 RESULTS AND DISCUSSION

Most students come to the library with the aim of fulfilling their information to complete assignments, research reports, or working on their thesis. To meet these information needs, there are several steps done in their information seeking behaviour:

4.1 Starting

In the initial stages of discovery, students tend to visit the information providers. Their aim and purposes can be seen from the factors that encourage them to look for information. To put it simply, *starting* can be regarded as the stage where students identify the problem they are facing. Most of the problems are lecture assignments or research. In regard to their needs on the information, students claim that they often experience constraints on understanding the concepts due to their limited information's on the matter. The influence of basic knowledge on individuals has also become a research on consumers' behaviour. For instance, Bettman and Park s (in Zuntriana, 2007) highly shows knowledge people have less need for information. Students identify information with how they will seek the information, and what types of information sources are sought (Zuntriana, 2007). They prepare a description of the information first. In addition to identifying, students can decide what kind of information they are looking for. This will provide students with a more specific description of the information. Before accessing any information, they make preparation according to their understanding of the information that must be sought. The purpose of this preparation is to make the searching process easier because information is likely provided in a broad scope. Identification is needed to so that the scope information becomes narrower. This tends to relate to the subject of information. If the students have obtained information literacy, in the search process, they will be more competent in organizing information sources so that their findings are precise and qualified.

4.2 Chaining

Chaining is the process where the users start their searching (Suhariono *et al.*, 2022). The way they start can be seen from how they prepare the source of information to be sought, characterized by students carrying notes that contain topics or the value of information to be found. These notes can be used to conduct a search using the search engine or the OPAC provided by the library. In addition, students sometimes approach librarians to ask for help in finding the desired information source. There are various ways of students' information seeking behaviour depending on their level of confusion.

What students do in seeking information is influenced by several factors. There are two stages: *backward chaining and forward chaining* (Ellis, Cox and Hall, 1993). Backward chaining is a process of searching backward. Backward chaining in general is when a user seeks referrals from the references, in the form of bibliography, indexes, abstracts, etc. *Forward chaining* is the discovery process done in forward manner, where the user is looking for references outside the references. An example is looking for other references in the form of a subject or the author of the information source. Forward chaining occurs not in chains and in roots. Nowadays, most of the students apply forward chaining due to the development of information technology, allowing users to explore as much information as possible. Most students prepare an overview by setting keywords to input to OPAC or search engines. Preparing keywords is the most appropriate way to find information. By using keywords, the results displayed will be more specific and in accordance with what they are looking for. In the chaining process, most students can gather 1 up to 5 information sources. Only few students end up collecting more than 10 sources of information because following this step, the next process is sorting out information sources. Gathering a lot of information sources takes a lot of time while students are required to complete their assignments in limited time.

4.3 Browsing

In this process, students explore the source of information after finding one source of information. Browsing should be done regarding the specific needs of the information (Romadhona, 2020). Students are not satisfied when they find a source of information yet there is still a sense of confusion that encourages them to re-explore the source of information they get. With the knowledge of the information sought and with the subject prepared by students, they can find many sources of information. Exploration of information sources in this library is strongly supported by the good internet network facilities, in which no students claim that they experience network problems. Problems in browsing for information arise from the students themselves, such as lack of knowledge on foreign languages. In browsing information, the sources tend to be found in many foreign language articles, especially in international journals, the content is mostly written

in English. This is one of the obstacles that are found when conducting exploration. The level of trust in the information source will also affect the way students browse. Findings that are less convincing can encourage students to find as many sources of information as possible.

4.4 Differentiating

Differentiating is the process of selecting sources of information that are found to be taken and used. Since students find many sources of information when browsing, students need to choose which source of information to use. This process can be carried out in various ways to find certainty in the source of information needed by students. There are various ways to identify sources of information based on the aims of students in seeking information, this is due to the information quality and needs that are known to the students themselves. This process is needed to find information that is more specific in the search results. From the browsing process that was previously carried out, there must be more than one information sources that are found. Every information source that is found tends to be in very broad scope. However, not all of information sources will be used. Some will sufficiently fulfil the needs of the students, while some might not.

Most of the considerations made by the students are made from the writer's side; starting from the background, the previous awards and the achievements of the author, expertise in a particular field possessed in creating the work can be used as a means to identify information sources.

4.5 Monitoring

The monitoring process is carried out after students are confident about their findings. Monitoring is needed as an update about the information sought. This change of information can occur with only a very short time. Therefore, it is needed to monitor the development of information sources. In the medical science field, it is very progress monitoring is very crucial. This is due to the development of diseases that infect humans. To overcome this problem, students are required to have competent knowledge. Medical technology also experienced similar update and development. Students must be able to master this development and anticipate it in case there is any emergencies or inadequate technical support. For this reason, good monitoring must be done to perfect the skills they have.

Information source monitoring can be done in many ways such as asking expert opinion or monitoring with through communication media whether the information is new, updated, or not.

4.6 Extracting

Extracting is the process where students finally retrieve the information, characterized by their action on their findings. The source of information that they find will affect their following actions. If the information is in the form of soft copy, the seekers will then download it. If in hard copy, then students will borrow it from the library. Sometimes students just read it, take notes, or remember it. Information retrieval is done after they have assured that the sources of information are sufficient for their needs. After going through several previous processes, if they are sure of their findings, they will use information sources for their own purposes. Information extracting can be done through borrowing books, downloading files, and recording information. It is up to the users to decide which way is considered as the most comfortable way.

Since most users find the source of information in the form of soft file, the retrieval is done through the download process. Many of them prefer soft files because they are more efficient. Physical forms tend to give the users some difficulties such as immobility. There is an electronic journal (e-journals) that can be downloaded by students because the library subscribes to the journal, even though several students still prefer to take notes instead of downloading or borrowing. It is suspected that there is still a few reasons that causes students to avoid borrowing or downloading collections, such as laziness or forgetting to bring any personal memory to store the files. A small percentage of students do not record or download, they only remember what is written in the text. The last reason is that the source of information may not be a demand for college assignments or research for students, but rather for their own personal insights. This usually does not apply to students who need references to make research or assignments. The possibility of forgetting information sources is very high in these cases because human memory capacity is very limited.

4.7 Verifying

Verifying is the process of evaluating and making sure whether the source of information that has been

found is suitable for the users' needs or not. The verification process aims to minimize errors that are contained by the information sources. The verification process can be done in many such as inquiring experts if, sharing with colleagues who have received similar information, or also reviewing from other sources. In short, the verification process is how users examine in detail the contents of information. Before using the source of information found, it would be better to first examine whether all sources of information are taken in accordance with what is sought or not. Because without researching, there are possibilities of error being found in the information sources. In doing verification, knowledge and insight are needed. For students, the source of information must be verified before applying it in research or lecture assignments.

Most students (45%) examined their findings by comparing it to other sources. Then 34% used the method of verifying information sources by sharing with lecturers or instructors who are experts in their fields. Most students learn from other sources rather than sharing it because they claimed that they are more comfortable with their choices, this is due to them being facilitated and do not have limited time or deadlines, and opportunities to check the source of information for their findings. There are also students who have a hard time socializing, these few students find obstacles in sharing their opinions with experts or colleagues. Whatever method students choose, they all lead to the same purpose; to find legitimate and relevant sources of information. The most important thing is that students are very serious in seeking and using information sources for their findings, in which they enjoyed all the processes in finding information sources.

4.8 Ending

This final stage completes an information seeking process. After students are confident about the source of information that they found and retrieved through several previous processes, they finally found the qualified information they were looking for. The source of information that has been selected and is proven to be valid is ready to be used by the students in accordance with their needs, which is to support the goals they must achieve. This goal can be in the form of assignments, research, or other scientific works. To carry its purposes, the source of information must be able to guarantee its value as information. The information can be used for lectures or research, for personal use, or shared with others. The way that students treat the information

they found then to be in accordance with their conditions. For students who have free time they can share their information with their colleagues, if the information they retrieved is not needed, they may save it for other personal use.

4.9 Barriers

Many students experience obstacles when during the information seeking process. The barriers experienced by 37% of students came from themselves. Individual barriers can be in form of laziness in searching for information. Busyness outside the university also becomes one of the individual barriers in information seeking behaviour. Other obstacles include physical and emotional or psychological conditions. Those aspects intertwine with each other, such as the moody feeling that tend to arise from laziness in students. Those problems are also signified who states the conflicted mental condition of a person drives them to create a comfort zone that causes them to solve a conflict only with one or two solutions that they perceive as comfortable for them. In seeking information, other obstacles come in the form of the lack of foreign language mastery, making it difficult to understand information that are delivered in foreign languages. External barriers such as the limited time in making discoveries also become one of the most influencing obstacles (Sugihartati and Harisanty, 2014). Students have limited time to go to the library due to their classes. It is also noted that there is an obstacle caused by the environment, where 18% of the student's state that it because the library of STIKes William Booth Surabaya is located on the fourth floor. The absence of elevators turns it into environmental obstacle for students who want to go to the library. There is also 13% of students who stated that the obstacle is caused by the influence of others, such as the delay of information seeking process due to other colleagues asking for assistance. To overcome these barriers, the students applied their own basic methods. There are 32% of the students who claimed that they did not encounter any obstacles. However, it does not mean that they never encounter any problem at all. The few obstacles or barriers they encounter are not considered as crucial for them. They do not take into account the obstacles they encounter because it does not affect their information seeking process that much. The result of a research conducted by Siti Rozinah (2012) states that the process of information

retrieval or information seeking behaviour by Ellis; *starting, chaining, browsing, differentiating, monitoring, extracting, and ending* are mostly done by students who are working on their theses. Students of the STAINU campus did not carry out two stages of *monitoring* and *extracting* directly, therefore it is concluded that only students working on their theses are applying Ellis's information seeking behaviour stages (Rozinah, 2012).

5 CONCLUSIONS

According to the results of analysis, the majority of STIKes students came to the library to fulfil their assignments. In starting the information seeking process, they prepare keywords as a tool to be used to find sources of information. After that students enter the keywords into the OPAC search engine or on the internet through a computer prepared by the library. After they found it through a search engine, they browse other information in case they are not satisfied with the findings. All sources chosen are then selected by the students to find the qualified information that may fulfil their needs. They monitor the development of information sources before retrieving information sources. Students also evaluate the information source of their findings so that there is no error in the information that they will use. Students end the discovery by using the information they retrieved to complete assignments, make research reports, and finishing their theses. In finding information students experience obstacles, such as laziness, lacking knowledge in foreign languages, limited time to visit the library, and locations that are difficult to access.

From the results of this study, it is recommended for the Library of STIKes William Booth to add more collections, socializing information for freshmen through library visits and introductions, and relocating libraries from 4th floor to 1st or 2nd floor; the latter is one of the obstacles that prevents students from going to the library, in which students complain about the library being located on the fourth floor while there is no elevator in the building. It is expected that the results of this study may be used as a suggestion to improve the quality and development of the library of STIKes William Booth Surabaya.

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