



Analysis of Digital Library Media Utilization During Pandemic

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Abstract. The pandemic that broke out in 2020 forced the government to issue new policies as an effort to maintain the continuity of education. One of the policies is learning from home (*Belajar dari Rumah/BDR*). This policy requires university students as learners to actively seek information and learning resources to support learning activities. Responding to this phenomenon, the State University of Surabaya Library provides digital library media which includes Online Public Access Catalog (OPAC), State University of Surabaya e-journal, State University of Surabaya e-book, etc. The purpose of this study was to analyze the use of digital library media for students during the pandemic. This is descriptive quantitative research with a questionnaire as research instrument. The sample population was State University of Surabaya students who were in the third to sixth semester. The indicated that the majority (98%) State University of Surabaya students frequently used open access consisting of E-Journals, IOPAC, and E-Books provided by UPT. State University of Surabaya Library. The driving factors for the frequent use of open access during the pandemic included the availability of information as a reference to support lectures, the level of accessibility and ease of features.

Keywords: digital library media · open access · pandemic

1 Introduction

The World Health Organization (WHO) has declared coronavirus (Covid19) as a pandemic since 2020. Caused by an infectious disease, the transmission can happen rapidly [1]. The right strategy is needed to control the spread of COVID-19 and its impact on the health system in Indonesia. The Indonesian government responded to this incident by issuing a policy in the form of a Circular Letter of the Minister of Education and Culture on the Implementation of Educational Policies in the Emergency Period for the Spread of Coronavirus Disease (Covid-19) [2]. With this policy, the learning process is carried out from home, known as learning from home (BDR).

In the concept of implementation, university students as learners are given access to materials and learning resources without time and place limits to support the dissemination of materials [3]. Students must also be active in seeking information and materials that support learning. The existence of a library is very important to provide a source of information that can be accessed by students, lecturers, researchers, and the public

[4]. With the development of information technology, libraries must be adaptive to user needs, transforming into digital libraries by providing media to access collections in digital form such as e-books, e-journals, etc. [5].

The State University of Surabaya Library is one of the libraries that has provided digital media that supports the implementation of distance learning. The digital media include State University of Surabaya integrated Online Public Access Catalog (OPAC), State University of Surabaya e-journal and State University of Surabaya e-book [6]. Digital library media such as e-journals, e-books, e-databases, OPAC are important sources used by students in the learning and research process [7, 8].

Several researches on the use of digital library media during the pandemic have previously been carried out. A study was conducted by Suja and Suresh with the aim of assessing the level of use of electronic resources or e-resources among university students in Kerala during the pandemic [9]. Students used e-resources to find sources for study materials, projects, research, etc. the frequently used E-resources included Indian academy of science, gisite, etc. The results showed that during the pandemic there was an increase in the use of e-resources. Before the pandemic, only 17.9% of students used e-resources every day. During the pandemic, there was an increase to 36.9% on the daily use of e-resources. However, the research was conducted on Kerala students, while the present research use students at the State University of Surabaya as sample.

Hendal also performed study to determine how university lecturers and staffs in Kuwait used electronic or digital library media during the pandemic [10]. The findings indicate that their primary motivations for using digital library resources were for research, reading, and subject-related subject-matter updates. E-databases (80%), e-journals (67.5%), e-books (37.5%), OPAC (7.5%), and other digital media were frequently used. User satisfaction with digital library content was good (50%), occasionally meeting needs (35%) and not meeting needs (15%). While the sample included lecturers and staff members who were employed by Kuwaiti universities, the current study is conducted at the State University of Surabaya Library with students as sample.

The State University of Surabaya Library's use of digital media, including OPAC, e-journals, and e-books, has not been the subject of any research. In order to better understand how digital library resources were used at the State University of Surabaya Library during the pandemic, a study is required. The purpose of this study was to examine how students used digital library resources at the State University of Surabaya Library during the epidemic. This study is significant because it aids in assessing the availability of digital information sources, allowing students and academics to make the best use of them to promote learning.

2 Method

Utilizing a survey, this study employs a quantitative descriptive methodology. Students at the State University of Surabaya who met the criteria for the study's population were those in third to the sixth semester. The sample calculation used the Moe equation with purposive sampling technique. A total of 100 students were gathered for the study's sample.

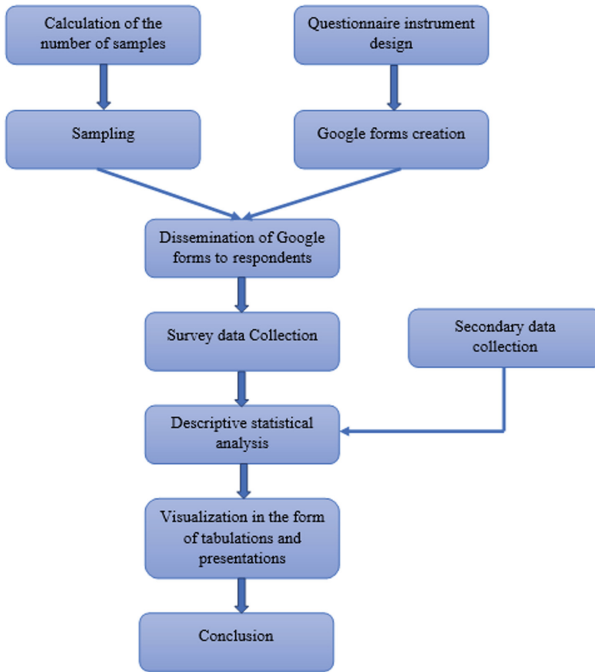


Fig. 1. Research Method.

2.1 Data Collection

Data collection was carried out using a questionnaire instrument in the form of a google form. The questionnaire provides 4 alternative answers with a Likert scale as 1 = very disagree/never, 2 = disagree/rarely, 3 = agree/often, and 4 = very agree/always.

2.2 Data Analysis

Data analysis used descriptive statistical analysis i.e describing the collected data to make general conclusions.

In Fig. 1, the research methodology is displayed.

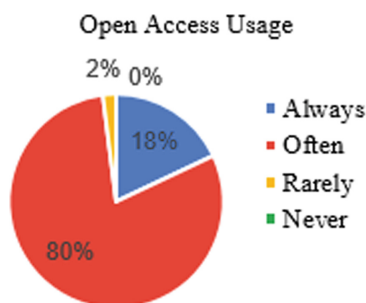
3 Result and Discussion

The results of distributing questionnaires to 100 student samples scattered across all faculties at State University of Surabaya allowed researchers to determine how the students there used open access digital media throughout the pandemic. Of the 100 students, 64% are studying in the 2nd year of study (3rd and 4th semesters), while 36% are in the 3rd year (5th and 6th semesters). The outcomes of delivering questionnaires to each faculty's respondents are displayed in Table 1.

Of the 100 respondents, 83% of them are female and 17% are male. This indicates that on female students take advantage of open access more often than male students,

Table 1. Number of respondents from each faculty

Faculty	Number of Respondents
Faculty of Technic	14
Math and Science	10
Economy and Business	10
Law and Social Science	10
Language and Art	12
Education	14
Sport Science	10
Postgraduate	10
Vocation	10
Total of Respondent	100

**Fig. 2.** Percentage of open access usage

considering that one of the requirements for sampling is State University of Surabaya students who have used open access at least 2 times while being a student.

The distribution of questionnaires regarding the use of open access during the pandemic at the State University of Surabaya generally produces a percentage of the intensity of use as shown in Fig. 2.

A total of 80% of students frequently used open access during a pandemic, 18% of students always used open access as a source of knowledge, and 2% of students rarely used open access. In total 98% of State University of Surabaya students actively used open access resources that the library has subscribed to. Since the library is dispersed among all of the faculties, practically every student at State University of Surabaya relies on open access to help them obtain the information they require.

A. E-Journal Usage

According to Fig. 3, 71% of students at State University of Surabaya frequently used the E-Journals that library subscribes to while 25% always used them. According to the

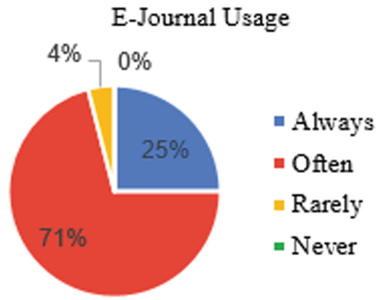


Fig. 3. Percentage of E-Journal usage

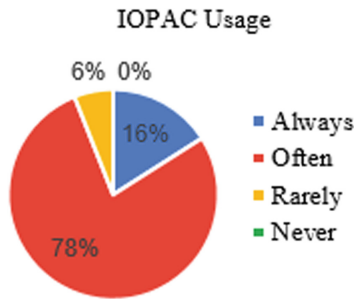


Fig. 4. Percentage of IOPAC usage

questionnaire's results (ranked by the number of responses), the following reasons for using the State University of Surabaya e-journal are given:

- a. Looking for scientific journal references for thesis and/or college assignments
- b. Completing coursework
- c. Make it easier to access information
- d. A place to publish articles
- e. Reference sources for research

From the questionnaire, it can be inferred that on average, students often used electronic journals to find references for scientific journals during the pandemic.

B. IOPAC Usage

According to Fig. 4, 16% of students at State University of Surabaya utilized IOPAC exclusively, 78% of students used IOPAC frequently when a pandemic was present. Based on the survey results (sorted from the most responses), further reasons for using IOPAC provided by respondents are as follows.

- a. Looking for references for completing lecture assignments
- b. Requirements before borrowing physical books at the library

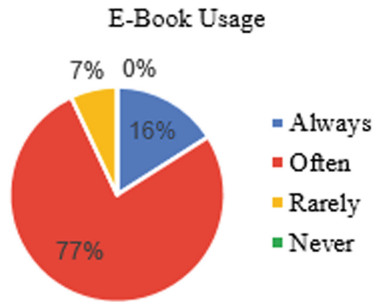


Fig. 5. Percentage of E-Book usage

- c. Looking for borrowed or available book status information
- d. Find the location of the desired book

According to the responses, the most of students use IOPAC as a resource to locate references when doing tasks. Given that the IOPAC's original function was solely as a catalog holding information on the books available in the central library and in the reading room at State University of Surabaya, and could not be used as a reference for assignment completion, this is a major problem for librarians in the library.

C. E-Book Usage

According to Fig. 5, 16% of State University of Surabaya students always used electronic books, and 77% of students continued to use electronic books regularly during the pandemic. According to the questionnaire's results (ranked by the number of responses), below are other reasons for using electronic books given by respondents.

- a. Finding reference books online
- b. Understanding the lecture material
- c. As a reference in working on final assignments, theses, and articles
- d. Time killing

From the survey, it can be inferred that on average, students used electronic books to locate online reference materials during the pandemic.

Overall, 99% of students agreed that lectures were supported by the open access that the State University of Surabaya Library subscribes to, and the remaining 1% disagreed. Open access was used in the pandemic not only because it was highly useful for completing lecture assignments, but also because of its clear features. The results of a survey on open access features' usability are shown in Fig. 6.

From the survey, 98% of students agreed that open access features were simple for them to access and understand. The questionnaire's convenience elements include accessibility (it can be accessed from any location at any time), aesthetic appeal, and ease of use.

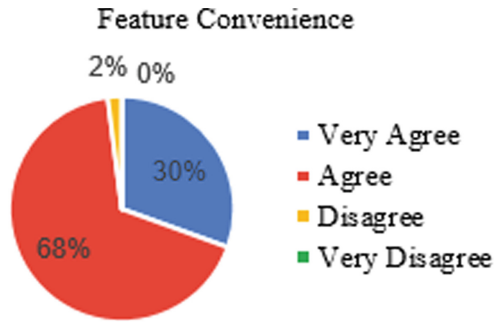


Fig. 6. Percentage of feature convenience

4 Conclusion

The majority (98%) of students agreed that open access elements were simple for them to use and understand. The questionnaire offered elements that made it simple to use, such as accessibility (it may be accessed from any location at any time).

Based on the results of the study, it was also found that the majority of State University of Surabaya students were still not effective in using the IOPAC. Therefore, it is vital to provide students the appropriate explanation of the use of IOPAC in order to increase the effectiveness of IOPAC use.

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