Students's performance and utilization of Universitas Indonesia Library during the pandemic

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Abstract

Academic libraries are the university's heart. However, studies on the relationship between library use and student performance are sparse. This study contributes to research on the relationship between library use and student performance. This study aimed to examine the relationship between library use of the Universitas Indonesia Library online (accessing through https://lib.ui.ac.id) and on-site (visiting the library) and library science undergraduate students' performance (Grade Point Average) on library science at Universitas Indonesia during pre-pandemic compared to during the pandemic. This study used a quantitative approach through survey research methods. Research respondents is 54 student that participating before and during the pandemic through data analysis chi-square and correlation analysis. The results showed a weak correlation between online and on-site library use and student performance. There was a significant relationship between online and on-site library use and demographic characteristics (gender, age, and year of enrolment).High-level students used the library more pre-pandemic than lower-level students. During the pandemic, students used electronic collections facilities outside the library website. The use of the library supports the improvement of student performance. This study contributed to introducing a data collection approach for assessing and making decisions about the library users needs, resources, and services. The study concludes that academic libraries are continuously improving their performance in contributing to achieving institutional goals and student success before and during the pandemic.

Keywords**:** Library use; Library service; Library science undergraduate students; Grade point average

Kinerja mahasiswa dan pemanfaatan Perpustakaan Universitas Indonesia selama pandemi

Abstrak

Perpustakaan akademik adalah jantung universitas, namun studi tentang hubungan antara penggunaan perpustakaan dan kinerja mahasiswa masih jarang. Studi ini berkontribusi pada penelitian tentang hubungan antara penggunaan perpustakaan dengan kinerja mahasiswa (Indeks Prestasi Kinerja). Penelitian ini bertujuan mengkaji hubungan penggunaan Perpustakaan Universitas Indonesia secara online (mengakses melalui https://lib.ui.ac.id) dan onsite (mengunjungi perpustakaan) terhadap kinerja mahasiswa Sarjana Ilmu Perpustakaan di Universitas Indonesia pada pra-pandemi dibandingkan masa pandemi. Penelitian ini menggunakan pendekatan kuantitatif dengan metode penelitian survey. Jumlah responden 54 orang yang sama pada saat pra-pandemi dan masa pandemi menggunakan analisis chi-square hubungan serta analisis korelasi. Hasil penelitian menunjukkan korelasi yang lemah antara penggunaan perpustakaan online, kunjungan perpustakaan (on-site) dan kinerja mahasiswa (Indeks Prestasi Kinerja). Hubungan signifikan terjadi antara penggunaan perpustakaan online dan on-site dan karakteristik demografis (jenis kelamin, usia, dan tahun pendaftaran). Mahasiswa tingkat atas banyak menggunakan perpustakaan pada pra-pandemi dibandingkan mahasiswa di tingkat bawah. Mahasiswa pada masa pandemi menggunakan fasilitas koleksi elektronik di luar website perpustakaan. Penggunaan perpustakaan mendukung peningkatan kinerja mahasiswa. Penelitian ini berkontribusi dalam memperkenalkan pendekatan pengumpulan data untuk menilai dan membuat keputusan kebutuhan pengguna, sumber daya, dan layanan perpustakaan. Simpulan penelitian adalah perpustakaan akademik terus meningkatkan kinerja dalam berkontribusi mencapai tujuan institusional dan keberhasilan siswa sebelum dan selama pandemi.

Kata Kunci: Penggunaan perpustakaan; Layanan perpustakaan; Mahasiswa Sarjana Ilmu Perpustakaan; Indeks prestasi kumulatif

INTRODUCTION

Academic libraries are the university's heart (Allison, 2015; Gaha, Hinnefeld, & Pellegrino, 2018). The value and impact of academic libraries are increasing, and calls are being made to demonstrate this value and impact to the public in general and the academic community in particular (Allison, 2015; Showers, 2015). Showers (2015) conducted the study of the value and impact of library use and showed a significant correlation between library use and student persistence. Showers (2015) explored libraries' impact on average student grades, which inspired similar studies with different focuses. In Indonesia, higher education is seen as an investment in human resources that can spur the nation's competitiveness in the global era (Amirudin, 2019; Rahmi, 2020).

However, studies related to libraries' impact and student achievement are sparse compared to other countries such as the United States, United Kingdom, and Australia (Cox & Jantti, 2015; Nackerud, Fransen, Peterson, & Mastel, 2015; Stone, 2015). Academic libraries' data used for three primary purposes: diversity of data, actionable analysis, and service development (Showers, 2015). Libraries that effectively collect, analyze and base decision-making on data have the potential to change users' and institutions' perceptions of their role and impact. The following reviews are three recent case studies from the United Kingdom, the United States, and Australia regarding the value and impact of academics (Cox & Jantti, 2015; Nackerud et al., 2015; Showers, 2015).

Recent case studies in the United Kingdom from Stone (2015) investigated library use and student achievement at the University of Huddersfield. This study used three main indicators, book loans, access to electronic resources, and access to library buildings. Results showed that students' low-end library usage ranged from 30-50% over four years and suggested the potential of investigating the relationship between library use and final student grades. Stone (2015) demonstrated the significant relationship between library use, electronic resources, and library loans with students' final grades. For example, there is a relationship between non/low use and students dropping out or a drop in attendance that can be a sign of retention problems. However, this research did not test for statistical significance though it had a significant sample size.

Recent case studies in the United States from Nackerud, Fransen, Peterson, and Mastel (2015) observed retention, student success, and academic engagement at the University of Minnesota. The University of Minnesota Libraries examined students' frequency and use of library services and resources (collections) to determine their impact on students' academic success. Results showed that most undergraduate and postgraduate students used library resources (collections) and services and demonstrated a strong relationship between library use, Grade Point Average (GPA), and retention. This case study provides data collection techniques, analysis, and research synthesis by the University of Minnesota Libraries that other researchers can apply.

Recent case studies in Australia by Cox and Jantti (2015) concluded that using the University of Wollongong Library (UWL) was one-factor influencing student performance. They noted that libraries are increasingly moving from collecting data

through student performance observations into a paradigm where data verified through specific measurements. This research showed the value and impact of using library resources and collections. Students who accessed UWL resources received higher final grades than students who did not.

Cox and Jantti (2015) included several caveats about their results and listed additional factors that may affect student performance. First, borrowing books does not equate to learning. Students may not read the book, or they may not understand its contents. The same logic applies to electronic collections. Second, many factors other than libraries contribute to student academic success, not the least of which are the teachers' skills and the students' attitudes and abilities. Third, correlation does not equal causation. For example, teachers may encourage students to use the library more frequently. Therefore, the correlation may reflect good teaching skills rather than student engagement with collections. Finally, other variables contributing to a student's academic success, such as attendance, were not captured due to technical and resource limitations. Additionally, the researchers explained that university leaders and teaching staff convinced of the value of libraries. An even more challenging task is persuading more students to visit the library.

Higher education institutions are encouraged to conform to the provisions of the Indonesian National Qualifications Framework (Kerangka Kualifikasi Nasional Indonesia, or KKNI). These qualifications based on the level of ability stated in the formulation of learning outcomes. One of the facilities used to support the Three Pillars of Higher Education–comprising Education, Research, and Community Service (Tridharma Perguruan Tinggi), is a library. Moreover, academic libraries, especially university and college libraries, can be viewed as something akin to cultural heritage, encompassing social or cultural values. These values are difficult to measure and often reject a quantitative description (Showers, 2015).

A previous study examined the relationship between students' library visits, reading interests, and learning achievement or Grade Point Average in Indonesia. Learning achievement is the result of a process of output from a transformation process of input in the form of subject matter from values in the form of numbers or letters given to students. Furthermore, Kulle (2014) identified the effect of library services on student achievement at Hasanuddin University (Unhas) using descriptive and quantitative analysis. The study found a positive and significant relationship between the intensity of library use and learning achievement, indicating that higher intensity of library use correlated with higher student learning achievement and a high average frequency of library use. On average, students at Hasanuddin University scored high on learning achievement measures. The coverage of library intensity uses the average number of books borrowed, frequency of visits, and reading books related to lecture material.

Several previous studies related to the relationship between library use and the Grade Point Average in Indonesia were identified (Dewi, 2015; Manurung, 2017; Husna, Azhar, & Sriwahyuni, 2014; Nisa, Abdilah, Azny, & Hidayat, 2020).

Husna, Azhar, and Sriwahyuni (2014) conducted a study on the

contribution of digital library utilization and reading interest to the Grade Point Average of students of the Informatics Engineering Education Study Program Padang State University. Students were due to the lack of use of digital libraries and low reading interest. Moreover, digital libraries and reading interests contribute to the student achievement index. Dewi (2015) also researched the influence of service quality and library facilities on students' Grade Point Average at Samudra University, Aceh, Indonesia, which showed that the quality of library services and facilities simultaneously had a positive and significant influence on student learning achievement.

Furthermore, Manurung (2017) studied the effect of learning behavior on the academic achievement or Grade Point Average of 150 students STIE Kesatuan Bogor. The analysis results show learning motivation has a positive and significant effect on Academic Achievement. Learning motivation has a positive and significant effect on learning behavior. Learning behavior has a positive and significant effect on student academic achievement. Further model development is needed to provide a more complete and comprehensive picture of the factors that affect the Academic Achievement of Students.

Nisa, Abdilah, Azny, and Hidayat (2020) researched the role of library services on student achievement at the University of Muhammadiyah Surakarta. The results showed that UMS library service was good according to most respondents, but there was no relationship between library services and the student achievement index. In addition, respondents stated that the infrastructure and facilities of the UMS library were

following the expectations of students. There was no significant relationship between infrastructure and facilities and infrastructure with the student achievement index. However, there is a significant relationship between collecting information from the UMS library on the student achievement index.

The Universitas Indonesia Library built in 1959. Faculty and institutional leader launched during the initial meeting of the University Presidential Bureau to discuss library organization. The library's development accompanied the university's development, and Universitas Indonesia completed a magnificent library building known as *The Crystal of Knowledge* in 2011. The construction of this building corresponded to Universitas Indonesia's strategic plan, specifically the component of integrating facilities, human resources, and finance.

According to its official website, Universitas Indonesia Library provides an integrated system that offers complete access to all faculties and study programs at the university. Universitas Indonesia Library supported an information technology-based system, namely the digital library online information system. Visitors can directly search and download material from library collections in the system. The Universitas Indonesia Library has around 1.5 million collections stored as of December 2021. The Universitas Indonesia Library has five functions, 1) education, 2) information and knowledge, 3) research, 4) recreation, and 5) publication. The main task of the Universitas Indonesia Library is to become a center for learning, information, and knowledge resources; a provider of educational and recreational collections; and a place for publication of scientific

works produced by the Universitas Indonesia academic community and others.

The electronic book services at Universitas Indonesia Library are not optimal because most respondents had never used e-book services at the library. This lack of e-book use was inversely proportional to electronic book services on the internet. Further, community members used the Universitas Indonesia Library e-book service only once a month. Meanwhile, the use of scientific magazines at Universitas Indonesia Library shows that 50 of 61 scientific magazines (82%) photocopied, while 11 titles (18%) never photocopied. Further, the magazine for 55 titles (90%) used, but the remaining six titles (10%) were not. Therefore, data on the use of materials is essential to optimize library procurement and resource use.

Universitas Indonesia Library has three main duties. First, managing, developing, and improving the learning environment in the library and building relationships with students, lecturers, and education personnel. Second, ensuring access to information resources, knowledge, services, facilities, and support systems in a physical or online environment at the Universitas Indonesia campus. Third innovating information and communication technology-based library services.

The Universitas Indonesia Library, during the pandemic, previously open every day except Sundays, had to physically close and replace all its services with online services. Services in the library include borrowing printed books, using computers in the internet room, and accessing collections. The users from non-Universitas Indonesia suddenly stopped. Librarians also have to stay at home and rack their brains so

that visitors still excellently receive services. The Universitas Indonesia Library provides online services such as borrowing, plagiarism prevention, membership activation, scientific paper collection, and other services in online.

The Universitas Indonesia Library in addition to supporting the tridharma (the three pillars of higher education: education, research, and community services) supports student performance, as measured by student Grade Point Average (Gaha et al., 2018; Soria, Fransen, & Nackerud, 2013). Therefore, this preliminary study collects data to investigate a correlation between the use of university libraries, notably the Universitas Indonesia Library, and the performance of library science undergraduate students in the Faculty of Humanities, Universitas Indonesia (FIB-UI). This study also contributes to an initial evaluation of the Universitas Indonesia Librarys' use online (accessing through https://lib.ui.ac.id) and on-site (visiting the library) on the performance of undergraduate library science students. The researcher collected data under typical conditions (before the pandemic) and during the pandemic. Therefore, this study will examine the relationship between Universitas Indonesia Library use and demographic characteristics of 54 library science undergraduate students and the correlation between library use and the GPA of the library science undergraduate students. The current study analyzes the relationship between students' library use and achievement. This study aims to know the relationship between students' performance and the utilization of Universitas Indonesia Library during the pandemic.

RESEARCH METHODS

Research this study uses a quantitative approach through survey research method to re-examine the previous theoretical foundations related to GPA and library use. Data collection techniques using a questionnaire and interviews. The type of respondent in selection using simple random sampling. Questionnaires were developed based on Cox and Jantti, (2015) research on students' library use and GPA at the University of Wollongong, Australia. Universitas Indonesia has two semesters, namely the odd semester and the even semester. The odd semester extends from September to early January, and the even semester from February to June.

Researchers distributed a Google Form questionnaire from Monday, February 3, 2020, to Friday, February 14, 2020 through the Library and Information Science Student Association (FIB-UI) WhatsApp Group, where all the students gathered in that group. In total, 238 students enrolled in library science; our sample used 54 students. Although they do not represent the general student population in the context of the impact of libraries on students' performance, these students are presumably familiar with the library, and sources of information, or at least are very interested in libraries.

At the time of questionnaire distribution, the extent of the pandemic was unknown. After recognizing the spread of the pandemic, we realized that data collected before and during the pandemic might differ. Therefore, we conducted subsequent research in October to examine students' library use and GPA during the pandemic, in which teaching and learning activities held online starting in March 2020. We invited 54 students to complete the same questionnaire between Friday, October 9, and Sunday, October 18, 2020. Students signed informed consent prior to doing both surveys. The majority of participants were female (n = 33, 61%). Respondents' enrolment level ranged from first year to fourth year: 2016 (n = 1), 2017 (n = 1), 2018 (n = 27), and 2019 (n = 25). Student ages ranged from 19-21, with a mean age of 19.2 in table 1.

Table 1
Demographic profile of respondents (n = 54)

	Variables	*n*	%
Gender	Male	21	39
	Female	33	61
Age	18	13	24
	19	22	41
	20	14	26
	21	5	9
Class of	2019	25	46
	2018	27	50
	2017	1	2
	2016	1	2

Source: Researcher processed data, 2021

Figure 1 and 2 illustrates the distribution of participants' Grade Point Average (GPA) before the pandemic (Mean = 3.54, Std. Dev = 0.194), and during the pandemic (Mean = 3.63, Std. Dev = 0.163). We obtained the Grade Point Average (GPA) data by asking the students to volunteer this information. The questionnaire contained only two questions, both of which were used by Cox and Jantti (2015), to report the online and on-site use of the Universitas Indonesia Library in table 2.

The data analysis technique uses chi-square and correlation analysis. Chi-square to see two variables in a contingency table to see if they are related. Correlation analysis (regression curve estimation) to see the strength of the linear relationship between a pair of variables, whereas regression expresses the relationship as an equation.
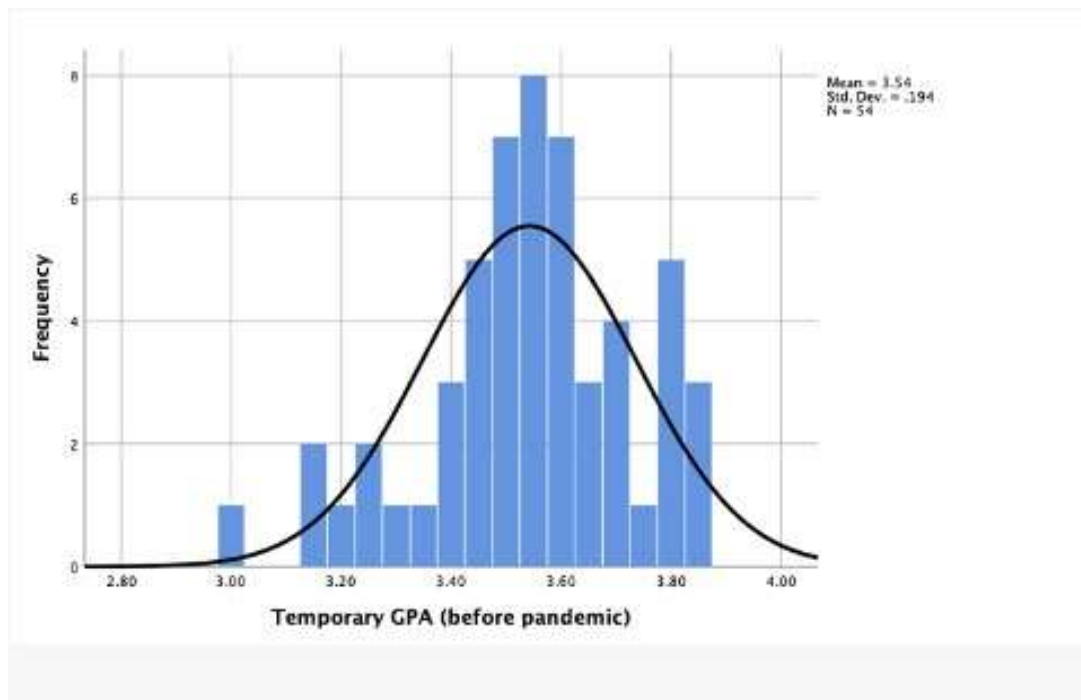
Figure 1. Participants' GPA before the Covid-19 pandemic
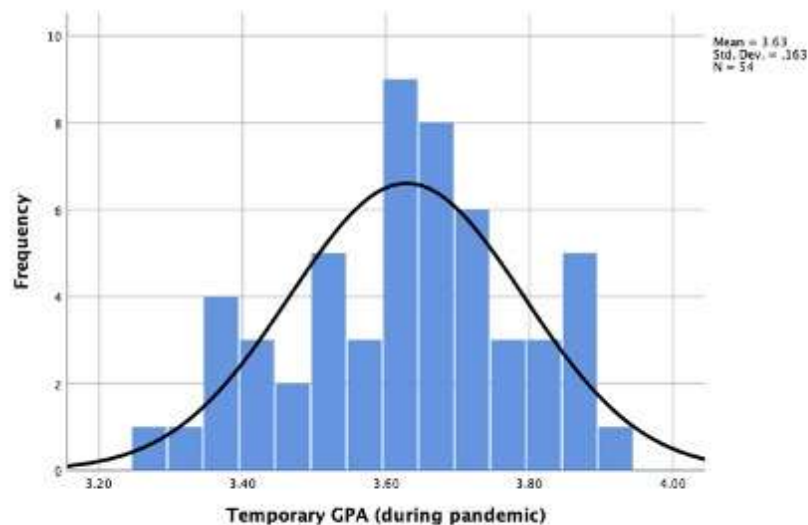Source: Researcher processed data, 2021

Figure 2. Participants' GPA during the Covid-19 pandemic
Source: Researcher processed data, 2021

RESULTS AND DISCUSSION

This section describes the distribution of the online and on-site use of Universitas Indonesia Library, the relationship between participants' demographic characteristics and their Universitas Indonesia Library use, and the correlation between library use and the GPA of the library science undergraduate students.

Table 2 shows the results of the two questions posed. For each question, most participants responded they sometimes used the library online and on-site both before and during the pandemic. Reliability analysis of the two questions

found Cronbach's alpha to be 0.579, indicating acceptable reliability (Taber, 2018). A chi-square test found a significant relationship ($p < 0.05$) between demographic characteristics and library use. Chi-square tests the relationship between two variables and measures the significance of this relationship (Field, 2013).

Table 3 describes the relationship between demographic characteristics and online and on-site Universitas Indonesia Library use before and during the pandemic. The researcher found four significant relationships, gender and on-site library use before the pandemic, enrolment year and online library use before the pandemic, enrolment year and online library use during the pandemic, and enrolment year and on-site library use during the pandemic.

Moreover, correlation analysis (regression curve estimation) is a procedure for estimating statistical regression and for seeing the relationship between two variables through graphs depicting the dependent variable (GPA of library science undergraduate students) and the independent variable (use of the Universitas Indonesia Library) (Field, 2013).

The correlation analysis showed weak non-linear relationships (<50%) between 1) the GPA of library science undergraduate students and pre-pandemic online library use ($R^2 = 0.034$, $p = 0.183$), 2) the GPA of library science undergraduate students and pre-pandemic onsite library use ($R^2 = 0.076$, $p = 0.043*$), 3) the GPA of library science undergraduate students and during the pandemic online library use ($R^2 = 0.048$, $p = 0.112$), and 4) the GPA of library science undergraduate students and during the pandemic onsite library use ($R^2 = 0.005$, $p = 0.625$).

Table 2

Questions about the online and on-site use of Universitas Indonesia Library ($n = 54$)

Questions		Always	Often	Sometimes	Never
Q1: To do your university assignments, what is the frequency with which you access journals through http://lib.ui.ac.id (online)	Before the pandemic	5	9	28	12
	During the pandemic	5	13	35	1
Q2: To do your university assignments, what is the frequency with which you come to the University of Indonesia Library (on-site)	Before the pandemic	5	13	33	3
	During the pandemic	2	16	32	4

Source: Researcher processed data, 2021

Table 3
Demographic characteristics and Universitas Indonesia Library use ($n = 54$)

			Gender		Age				Class of			
			Female	Male	18	19	20	21	2016	2017	2018	2019
Q1: To do your university assignments, what is the frequency with which you access journals through http://lib.ui.ac.id (online)	Before the pandemic	A	3	2	1	1	2	1	1	1	1	2
		O	6	3	4	4	1				3	6
		S	17	11	5	12	7	4			17	11
		N	7	5	3	5	4				5	7
			$\chi2 (9) = 7.370$, $p = 0.599$		$\chi2 (9) = 7.370$, $p = 0.599$				$\chi2 (9) = 23.281$, $p = 0.006^*$			
	During the pandemic	A	4	1		3	1	1	1	1	2	1
		O	11	2	5	3	5				5	8
		S	17	18	8	16	8	3			18	17
		N	1					1			1	
			$\chi2 (3) = 6.725$, $p = 0.081$		$\chi2 (9) = 16.634$, $p = 0.055$				$\chi2 (9) = 22.349$, $p = 0.008^*$			
Q2: To do your university assignments, what is the frequency with which you come to the University of Indonesia Library (on-site)	Before the pandemic	A	2	3		3	5			1	2	2
		O	12	1	3	7	2	1	1		7	5
		S	16	17	8	11	10	4			17	16
		N	3		2	1						3
			$\chi2 (3) = 10.384$, $p = 0.016^*$		$\chi2 (9) = 7.986$, $p = 0.536$				$\chi2 (9) = 16.631$, $p = 0.055$			
	During the pandemic	A	1	1		1	1			1	1	
		O	12	4	2	9	4	1	1		10	5
		S	16	16	9	10	9	4			14	18
		N			2	2					1	3
			$\chi2 (3) = 5.610$, $p = 0.132$		$\chi2 (9) = 7.109$, $p = 0.626$				$\chi2 (9) = 32.582$, $p = 0.000^*$			

A = Always; O = Often; S = Sometimes; N = Never
$^*p < 0.05$
Source: Researcher processed data, 2021

The results show that library use and participants' GPA before and during the pandemic represent a model with a low R-squared ranging from 0.5% to 7.6%. R-squared values ranged from 0 to 1 and stated as percentages from 0% to 100%. Essentially, an R-squared value of 0.005 indicates that the variance of the independent variable explains 0.5% of the variance in the dependent variable. For instance, if during the pandemic, on-site use of the Universitas Indonesia Library has an R-squared value of 0.005 relative to students' GPA, that would indicate that on-site library use explains 0.5% of the variance in students' GPA during the pandemic. The GPA of library science undergraduate students and on-site library

before the pandemic had a significant relationship.

The first studys' result concerns student performance. Participants' GPAs increased from pre-pandemic (Mean = 3.54) to during the pandemic (Mean = 3.63). When student GPA analysed with library use before and during the pandemic, a significant correlation found between GPA and on-site pre-pandemic library use. However, an increase in student GPA during the pandemic could be related to various factors in addition to online or on-site library use. For instance, one factor may be university grading policy changes during the pandemic (Putra, 2020). Further, as Allison (2015) expresses, "It is difficult to say whether library use makes good students, or library use is a characteristic of a good student."

Cox and Jantti (2015) study at the University of Wollongong Library (UWL) found that students who used the online and on-site library performed better. The UWL data showed a correlation between the use of library resources and student GPA. However, Cox and Jantti (2015) noted that correlation does not prove cause and mentioned other potential factors influencing GPA, such as the skill of a lecturer or encouragement to use the library. Even students who borrow books from the library do not automatically understand the content of the books or the courses taught. Furthermore, this research showed that library use only explained a small portion of the variance in students' GPAs, finding low R-squared values in figure 1 and 2.

As Minitab (2013) explains, "Any field that attempts to predict human behaviour, such as psychology, typically has R-squared values lower than 50%." The researchers hope that future research on Universitas

Indonesia would clarify the correlation between the library use and student's GPAs with larger samples. The second study result regarding the relationship between demographic characteristics and online and on-site library use before and during the pandemic showed a significant gender difference. Women more frequently visited the library before the pandemic than men. This contradicts Stone (2015) and LeMaistre, Shi, and Thanki (2018) results, women show higher usage than men for resources use, but visit the physical library less.

In addition, students with more senior status used online library resources more pre-pandemic relative to students with lower academic class standing. However, during the pandemic, all participants accessed library resources online except for one student from the 2018. Two students from the 2017 and 2018 classes said they often sat in front of the library but did not go inside because it was closed during the pandemic. The Universitas Indonesia Library during the pandemic, limited face-to-face services starting March 23, 2020, and only carried out online services until today. However, according to table 3, 50 students report using the library on-site. This might confuse students because both surveys have the same questions that were asked before the pandemic and during the pandemic without giving information that the second question was in a pandemic state.

Not many studies have examined the correlation between students' demographic characteristics and library use. Gaha, Hinnefeld, and Pellegrino (2018) examined the relationship between library instruction and graduating students' four-year cumulative GPA and suggested that future research should control for students' demographics and pre-college preparation. Stemmer and

Mahan (2016) argued that first-year and underclass students needed the library because they were adjusting to a new life and responsibilities. Moreover, researchers have suggested that libraries should participate in university-wide programs that target at-risk students to help improve their grades and aid university retention efforts (Allison, 2015). Other research found that on-site and online library use significantly predicted library users' gender, age, and status as a first-generation university student (LeMaistre, Shi, & Thanki, 2018). Future research recommendations included analyses of students' research consultations with librarians, information literacy instruction session attendance, or measures of the library space (LeMaistre et al., 2018; Rahmi, 2020).

Future research also should include survey results from faculty and students to understand better the use of on-site and online library resources and programs from the diverse perspectives of these important stakeholders. Finally, future research should provide a detailed comparison of program's measured benefits to the opportunity cost of resource use. The results of all future research on Universitas Indonesia Library should be compared to research results from other institutions to contribute to a national dialogue on best practices.

This research had some limitations. First, the sample size was small, only 54 students, which is insufficient to represent library science students or University of Indonesia students in general. In addition, the uneven distribution of respondents by age, gender, major, level, and sample compared to the demographics of the entire student population. Given the number of variables, the minimum sample

size should be about more than 1000 students. Thus, the research analysis is not strong enough to explain the situation in the field that affects the strength of the analysis between library use and GPA or performance, especially during the pre-pandemic and pandemic Covid-19.

CONCLUSION

The results showed a weak correlation between online and on-site library use and student performance. Academic libraries are under increasing pressure to demonstrate their contributions to achieving institutional goals and student success before and during the pandemic. This research also contributes to this effort in two ways, showing the relationship between student demographic characteristics and online and on-site library use both before and during the pandemic, and showing the correlation between on-site and online library use both before and during the pandemic and the GPA of undergraduate library science students. This research found a significant relationship between student gender and on-site library use during pre-pandemic and pandemic. Additionally, weak correlations were found between online and on-site library use before and during the pandemic and GPA. In response, libraries are beginning to measure the impact and value of their use on students, academicians, and others. This preliminary study introduces an approach based on collecting data to assess library users' needs and act or make decisions to improve resources and services. Further research can be done by increasing the number of samples by dividing the demographic distribution equally from each level to generalize the results.

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