

# ASSESSMENT AND UTILIZATION OF DIGITAL LIBRARY SERVICES IN THE NEW NORMAL: IMPLICATIONS TO STUDENTS' ACADEMIC APPLICATION

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**Abstract:** The digital library services of the library are of paramount importance to the college students' academic activities. This study aimed to examine the students' assessment and extent of utilization of digital library services in the new normal and its implications for students' academic application. The study used a descriptive correlation design since it described the utilization and assessment of the digital library services and its influence in the academic applications of the students. A researcher-made questionnaire anchored on the factors of e-quality service of Ojasalo was the main instrument to gather data. A total of 310 students participated in the study. Multiple regression analysis was used to determine the influence of students utilization and assessment of the digital library services to their academic application. The findings reveal that the students' utilization of digital library services is on an average of twice a week. The findings also reveal that students had a very good assessment of the quality of the digital library services. Furthermore, the students' academic application of digital library services was described as being done to a "high extent". Additionally, the students' utilization and assessment of digital library services significantly influences their academic application. The study concludes that quality of the digital library services has a significant predictor to students academic application. Thus, it is recommended to the librarians to continue improving the quality of the digital library services to increase its utilization among the students.

**Keywords:** Digital library services, Utilization, Academic application, Quality service

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## Introduction

Digital library services are user services that exist online to facilitate and cater to the information needs of their users (Pomerantz, 2008). Because of continuous development and innovation, many libraries have gradually transitioned some face-to-face services to online setup. Some libraries have continued following the 'traditional' way of giving services, and most have mixed traditional services with digital library services. These have made the library more adaptable to transformation through innovations.

The pandemic caused a lot of unexpected changes in the usual things people do. In the case of libraries around the world, specifically academic libraries, librarians used to provide services to students in a face-to-face setup, but the pandemic forced the physical closure of all academic libraries globally and locally. However, services had to continue. The library under the current study provides the following Digital Library Services (DLS) in the new normal: *E-Reference Services*, *Online Library Instruction*, and *Online Databases*. The majority of these services were offered by the library before the pandemic in a face-to-face mode of delivery inside the library and classroom, but with the sudden change, these

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services transitioned online to continue the mission of the library. *LiRA*, however, is a novel service that was designed with the use of Google Forms, along with other DLS.

It has been two years since the digital library services were launched in the new normal to cater to the information needs of the students in their online classes, and it is an opportune time for the researcher to assess its quality and utilization and its consequent effect in its application to students' academic requirements and information needs. Given this context, the current study is, thus, pursued. Specifically, it examined the extent of use and assessment of digital library services as well as the participants' extent of academic application. This research looked into whether the use and assessment of the Digital Library Service have a significant influence on academic application. Thus, a framework for the study has been conceptualized.

This study presupposes that the assessment and utilization of digital library services in the new normal have implications on students' academic application. This assumption is anchored on the diffusion of innovation in the organization framework of Bouwman (2005) and the E-Service Quality Model of Ojasalo (2010).

Everett M. Rogers (1983) is the original proponent of *Diffusion of Innovations theory*. He defined *Innovation* as an idea, practice or object perceived as new by an individual or another 'unit of adoption'. And, *diffusion* is the process in which innovation is communicated through certain channels over time among the members of a social system. It is in this definition that he came up with four central elements of a diffusion process namely: (1) innovation, (2) communication channels, (3) time, and (4) social system. This diffusion process has guided the framework of Bouwman in studying the diffusion process of ICT in an organization in which he came up with four phases in his framework: 1) Adoption, 2) Implementation, 3) Use, and 4) Effect. In relation to the framework, the use & effect phase was explored to determine the participants' extent of utilization of the following Digital Library services (DLs) which the library under study has innovated in the new normal. These are categorized as follows: *e-reference services*, *online library instruction*, and *online databases*. Bouwman explained that it is in the effect phase where the value and contribution of an innovation is determined. In this case, the following tasks taken from CMO No. 04 s.2020 (Guidelines of Implementation of Flexible Learning) were identified as indicators to know the effect of the DLs in the academic task related matters of the individual users specifically their Research preparation, Exam preparation, & Instructional requirements.

Another theory that supports this study is the E-Service Quality Model developed by Jukka Ojasalo (2010). This theory introduces a holistic conceptual model that was developed based on extensive literature analysis on the characteristics of e-services such as the quality concept, service quality, and e-services quality dimensions. The distinct characteristic of e-services is that the interaction with customers is done online through different platforms like social media apps, email, text messaging, & other communication tools with the provision of the internet. Furthermore, service delivery is not restricted with opening hours and distance. In this study, quality has been defined as something subjective, and is based on a business viewpoint, which asserts that the customer always makes the final buying decision. Customer perceived service quality is based on the disconfirmation principle that explains that the "quality of a service results from how well the experienced service performance meets the prior expectations". In the context of the study, the quality of the digital library services is assumed to be based on the match between prior expectation and actual experience of the students. Thus, the

digital library services were assessed using the following dimensions: *ease of use, suitability of information, responsiveness, and accessibility*.

## **Materials and Method**

### ***Research Design***

This study employed descriptive-correlational research design. This design is used for analyzing data and understanding the relationship of the study (Creswell, 2012). This method is deemed appropriate for this study since it described the utilization and assessment of the digital library services and its influence in the academic applications of the students.

### ***Participants***

The participants of the study were the college students enrolled in the 2nd semester of the school year 2021-2022. They were chosen because they are the most accessible research population for the researcher. Convenience sampling technique was utilized in the study. It is a basic nonprobability sampling technique, by which the researcher defines a population but not necessarily identifies specific participants. The sampling technique gets data from those who are available and willing to participate in the population (Adams & Lawrence, 2019).

### ***Instrument***

The researcher used a survey questionnaire that was administered online to measure the participants' extent of utilization and assessment of the quality of the DLS. The first part of the questionnaire deals with the participant's utilization of digital library service particularly on e-reference service, online library instruction and Online databases. The second part of the questionnaire elicits that participant's assessment on the quality of DLs using the following dimensions from Ojasalo's concept of e-quality: ease of use, suitability of information, responsiveness and accessibility. The last part of the questionnaire covers the participants' extent of academic application of the digital library services which consists of research preparation, exam preparation and instructional requirements. Furthermore, an open-ended question was carefully formulated for focus group discussion to verify the items that were rated high and low by the participants.

### ***Data Gathering Procedure and Ethical Consideration***

Before gathering the necessary data, the researcher sent a letter to the registrar's office asking for enrolment data. An approval was then sought from Lourdes College Research and Ethics Committee (REC) to ensure that ethical requirements and procedures are adhered to during the conduct of the study. This research was approved by the REC and after the approval was sought, the researcher then gathered two types of data. The first is quantitative data which was collected through a questionnaire administered via Google form within a target range of two weeks. The survey questionnaire was distributed electronically sometime in May 2022 which includes an informed consent that contains the background, procedure and the purpose of the study, and also statements that assures confidentiality and that their participation is purely voluntary. A letter to the participants containing data privacy statements in compliance with the provisions of RA 10173 or "Data Privacy Act of 2012" was also given, and a consent form that participants filled out before participating in the study was also obtained.

The questionnaire can be answered in 10 to 15 minutes. After the needed data were gathered, the processing of data was done.

Second, after looking into the processed data, the researcher conducted a Focus Group Discussion (FGD) to verify the items that were rated high and low by the participants. The researcher identified 30 representatives from the participants who answered the survey questionnaire each. The representatives were divided into three groups having 10 participants for each session.

Before conducting the FGD, the researchers sent an informed consent and an invitation letter for the 30 representatives to be part of the FGD. The invitation letter includes the purpose of the FGD, a statement that their participation is purely voluntary and that they were free to withdraw from the FGD without negative consequence or penalty, and the duration or time. A confirmation sheet containing questions that asks the participants' preferred time, date, and platform preference for the FGD, and confirmation that they allow the researcher to make them one of the participants of the FGD was also given to the representatives.

During each session of the FGD, the researcher followed a protocol beginning with asking permission from the participants to record the discussion digitally and assuring them that information they provide will be treated with utmost confidentiality, including names and relevant information. The participants were informed that the benefit of voluntary participation and sharing their ideas of Digital Library Services (DLS) will enrich the data of the study and may enhance library users' experience as a result. More quality-efficient and effective Digital Library Services (DLS) may be a positive outcome. There were no risks associated with the study because participation was purely voluntary. The researcher assured the participants that should there be any burden, the researcher will compensate in a follow-up.

The researcher also ensured the neutrality of questions, and the participants were treated with respect and were allowed to speak freely during the FGD. The data were tallied, analyzed, and interpreted by the researcher and will be retained for one year, from 2022-2023.

### ***Statistical Treatment of Data***

Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to present the participants' utilization of digital library services, their assessment on the quality of digital library services, and their extent of academic application. Regression was used to determine the influence of participants' utilization and assessment of the digital library services on their academic application.

## **Results and discussions**

Results of this study were discussed as research aims and null hypotheses.

Table 1 shows the participants' extent of utilization of the Digital Library Services. It can be gleaned from the table that all of the digital library services were utilized to a moderate extent or twice a week. This may imply that the students utilize the digital library services to inquire and to request access to the e-resources that the library offers to help them in their information needs and to be knowledgeable

of the available resources and how to access them. As pointed out by Hendal (2020) that the rise of digital services offered by the library enabled the user to utilize various electronic resources. Faculty have utilized electronic resources for writing research papers. Databases and e-journals were the preferred resources.

*Table 1: Summary of participants' extent of utilization of the Digital Library Services.*

Digital Library Services	Mean	Description	SD
Electronic Reference Services	3.09	Moderate Extent	1.45
Online Library Instruction	3.43	Moderate Extent	1.33
Online Databases	3.45	Moderate Extent	1.37

Table 2 shows the participants' assessment of the quality of Digital Library Services. The participants' assessment of the quality of the Digital Library Services is generally very good. This entails that the digital library services offered by the library under study are accessible online, anytime and anywhere through any devices, requests are also catered immediately, participants also receive accurate, adequate, explicit, useful, appropriate, and factual information, and the DLS are well organized, understandable and easy to navigate. As mentioned by Einasto (2014) that well-structured sites and well-organized information, fast and easy navigation, comfort, and convenience of the user while using the library website are determinants to the quality and success of an e-service.

*Table 2: Summary of participants' assessment of the quality of Digital Library Services.*

Indicators	Mean	Description	SD
Ease of use	3.90	Very Good	0.99
Suitability of information	3.95	Very Good	0.98
Responsiveness	3.97	Very Good	0.95
Accessibility	3.99	Very Good	0.96

Table 3 shows participants' extent of academic application of the Digital Library Services. As shown in the table, the participants rated their academic application of DLS to a high extent. This denotes that participants utilized the DLS especially in their research to enrich their sources, theoretical framework and to properly cite their sources of information. Furthermore, participants apply the DLS to broaden their knowledge acquired in the classroom and get their requirements done. Similarly, Emeahara and Ajakaye (2022) found the undergraduate students utilize the resources and services of the library for their assignments, learning, examination purpose, class preparation and self-development.

Table 3: Summary of participants' extent of academic application of the Digital Library Services.

Academic Application	Mean	Description	SD
Research preparation	3.99	High Extent	1.09
Examination preparation	3.86	High Extent	1.10
Instructional requirements	3.72	High Extent	1.14

Table 4 shows the Regression analysis on the influence of utilization and assessment of Digital Library Services on Academic application. Evidently, the utilization and quality of the digital library services influence their academic application. Therefore, the null hypothesis can be rejected. Specifically, it is the participants' assessment on the quality of digital library services that has a significant predictor in their academic application, which means, the higher the quality of the Digital Library services, the higher the likelihood that they will apply it in their academic activities. From the findings of the study, it can be inferred that students will more likely apply the Digital Library services (DLs) on their assignments, projects and research if they have experienced easy to use, responsive, suitable information, and accessible DLs. This holds true to the study of Mubeen et.al. (2021) that 24/7 access to the digital library services and resources encourages application and use among research students. Similarly, Satpathy (2012) revealed that users of ICT-based library services such as databases, OPAC, E-book repository etc. had a good effect on research and study among faculty and students.

**Table 4 Regression analysis of the influence of utilization and assessment of Digital Library Services on Academic application.**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
<b>(Constant)</b>	.595	.205		2.90	.004
<b>Utilization</b>	.308	.039	.370	7.92**	.000
<b>Assessment</b>	.557	.058	.445	9.53**	.000

**Model Summary**

R = .707 R<sup>2</sup> = .499 Adjusted R<sup>2</sup> = .496 F = 153.09 \*\* p = .000

\*\*significant at 0.01 level

## **Conclusion**

In this time of new normal, the library remains responsive to the academic needs of its stakeholders by transitioning face-to-face services to online setup. The digital library services provided by the library under study were utilized by students twice a week to support their academic activities. It is noteworthy that participants had a very good experience in availing the services. The researcher's assumption that the students' academic application is influenced by the extent of utilization and quality of the Digital Library services is confirmed. The findings of study confirm the Diffusion of Innovation in Organization theory by Bouwman et al. (2005) that ICT use is important in an organization because it allows members to work more effectively and efficiently.

The moderate utilization rating is a motivating factor for further improvement of the Digital Library services (DLs) to increase its use. Furthermore, the very good rating of the quality of the DLs is the significant predictor to students' academic application. Students will utilize and apply the DLs in their academic activities if they had a quality experience. Therefore, to increase the student's utilization and academic application of the DLs on their academic and information needs, the librarians and library staff must continually improve the quality of the DLs. This would mean examining the functionality, content, features, and other attributes of the DLs and develop ways for further improvement. This finding is supported by Kim-Soon (2014) that the assessment of the quality of e-services is vital for sustainable support to research works, learning, and communication provided to students.

## **RECOMMENDATIONS**

1. That the head librarian, may:
  - a. Include in the library staff meeting an agenda wherein the library staff can evaluate and suggest ways on how to improve the digital library services that came out with low utilization & assessment.
  - b. Come up with an in-service training that will enhance the technological competencies of the library personnel.
2. The library personnel may,
  - a. Consider improving the time range when responding to inquiries sent through Ask a Librarian using SMS & FB messenger & consider introducing their name to whoever responds to the inquiries & request.
  - b. Explain thoroughly in the library instructions the process, policies & laws that govern the access to ebooks repository to improve its utilization.
  - c. Include in the LiRA (Library Research Assistance) form, a service that is specific for students' clarifications & questions after viewing the pre-recorded training videos for asynchronous learning; also include the link of LiRA in the content of the pre-recorded training videos.
  - d. Consider requiring the students to watch the pre-recoded training videos first a day before having the synchronous instruction to increase their knowledge on the features & functionalities of each database and improve the collaboration with the faculty in promoting to

the DLs. Also, include in the content of the instruction the specific DLs that the students can use to find information on how to enrich the research methods for students' that are having their thesis writing.

3. Library users may maintain their attendance in library orientation and information literacy sessions to increase their awareness of the availability of digital library services, and to use such for their academic activities.
4. To the faculty that they encourage the students to utilize primarily the resources offered by Digital Library services of the library to help them in their research needs & academic requirements.
5. To future researchers (*specifically the librarians*), that they explore each service provided in the library by conducting a study and draw ideas not just on the quantitative data but also in combination with qualitative data to come up with better inference of the research.

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