

Awareness of Online Reference Services on Students' Information Literacy at Bicol College Main Library

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ABSTRACT

Online reference services play an important role in enhancing students' access to reliable academic resources. This study aimed to assess the awareness of online reference services and their impact on students' information literacy at the Bicol College Main Library. Specifically, the study evaluated the library's current status in terms of availability of online reference, library infrastructure, service utilization, and promotion of online services and awareness. It also determined the level of students' awareness and literacy skills in navigational abilities, database familiarity, information retrieval, and technological proficiency. Students demonstrated a "Less Aware" level of proficiency across all variables, which highlights significant gaps in digital literacy. The primary challenges identified included insufficient training, inadequate communication, limited access, and lack of integration into the curriculum. Based on these findings, an action plan was developed focusing on training programs, improved communication strategies, enhanced technological infrastructure, and curriculum integration of online reference services. There were recommendations given, which include workshops to address digital literacy gaps, upgrading of library resources, and strengthening collaboration between library staff and faculty to maximize the use of online tools. The researcher also recommends future studies that could explore the long-term impact of these services on academic performance and evaluate the effectiveness of implemented strategies.

Keywords: awareness, online reference services, information literacy

INTRODUCTION

In the digital era, libraries significantly contribute to students' information literacy by providing online reference services that include digital tools, databases, and virtual assistance. These services equip students with critical thinking and research skills essential for academic success. However, challenges such as a lack of student awareness, overreliance on external search engines, and limited engagement during orientations hinder their effective utilization. Studies emphasize that promoting interactive and engaging strategies can bridge this gap to ensure that students maximize these resources and develop essential competencies for navigating the vast information landscape (Ersöz & Kahraman, 2020; Singh et al., 2020).

The importance of online reference services aligns with Republic Act No. 9246, enacted in the Philippines, which emphasizes the modernization of librarianship to adapt to digital demands. This law highlights the role of librarians as dynamic professionals who are capable of integrating innovative services to promote information literacy. Research also shows how global libraries such as those in Malaysia and China, are adapting to the digital landscape through initiatives like "Ask a Librarian" and enhanced digital library services, which set a precedent for similar strategies in local contexts (Nasir, 2020; Bonn et al., 2023). These efforts reflect the potential of libraries to exploit independence, critical thinking, and lifelong learning in the digital age.

At the Bicol College Main Library, challenges in awareness and utilization of online reference services limit its effectiveness in enhancing students' research skills. Yap, Martinez, and Rian (2022) found that while students acknowledge the availability of library resources, limited awareness and the effect of the pandemic hindered their use. Some initiatives like orientations, training, and updated technology integration are essential to address these gaps and maximize proactive engagement with library resources. The institutions can empower

students to achieve academic and professional success to ensure equitable access to information in the digital era through awareness and understanding of online reference services.

Framework

The theoretical framework of this study integrates multiple theories to provide a structured foundation for understanding and addressing the awareness of online reference services at Bicol College Main Library. One of the theories that acknowledges the current study is the systems theory, developed by Ludwig von Bertalanffy, which highlights the interconnectedness of library components such as technology, personnel, and processes. It emphasizes the collective influence on service delivery and user experience. It also offers a holistic perspective to evaluate the library's infrastructure, service promotion, and feedback mechanisms.

The study also incorporates the Technology Acceptance Model (TAM) by Davis, which focuses on perceived usefulness and ease of use to understand students' acceptance of online reference services. This theory provides insights into users' likelihood of adopting these services based on their value for academic needs and accessibility. Additionally, Information Richness Theory explores the effectiveness of communication channels in conveying information and resolving ambiguity, which emphasizes the role of face-to-face and digital interactions between librarians and users. Lastly, User Satisfaction and Experience Theory highlights the emotional and practical aspects of user contentment with library service, which shows the impact of satisfaction on service utilization and user retention.

Through synthesizing these theories, the Enhanced Awareness and Adoption Framework (EA2F) offer a comprehensive approach in the promotion of online reference services. The Technology Acceptance Model (TAM) highlights the services' usability, and Information Richness Theory ensures clear communication across various channels. The framework aligns the campaign with students' evolving needs, which heightened awareness and sustainable adoption of online reference services. The EA2F addresses the academic context of Bicol College and supports the broader goal of creating a critically literate and digitally empowered library community.

Objectives Of the Study

This study aimed to assess the awareness and utilization of online reference services and their impact on students' information literacy at Bicol College Main Library. It sought to identify the (1) current status of the library in terms of (a) online reference service availability, (b) infrastructure, (c) service utilization, and (d) promotion. The study also aimed to (2) determine students' awareness and proficiency in (a) navigating online resources, (b) database familiarity, (c) information retrieval, and (d) technological proficiency. Additionally, it explored the (3) challenges students face in using these services, and (4) proposed an action plan to improve their awareness and usage of the library's online reference services.

METHODOLOGY

This study employs a mixed-methods research design, integrating both quantitative and qualitative data to provide a comprehensive analysis. The quantitative phase involves administering a structured questionnaire to gather data on students' awareness and literacy regarding online reference services, which is analyzed using descriptive statistics. In addition to the quantitative and qualitative methods, document analysis is incorporated to review existing materials related to online reference services, such as promotional content, usage statistics, and library policies. The research instrument is a survey questionnaire designed to assess the current status of the BC Main Library, students' awareness, literacy skills, and the issues they face with online reference services. Data were collected from 400 respondents, with 100 students from each grade level, ranging from first-year to fourth-year students at Bicol College after securing approval and cooperation from the college administrator and librarian. The data was processed using thematic analysis for qualitative responses and descriptive statistics for quantitative data.

Document analysis was used to analyze the sources, and the survey questionnaire has two (2) parts. The document analysis of the current status of BC Main Library in terms of availability of online reference services, library infrastructure, service utilization, promotion of online services, and awareness. The first part

of the survey questionnaire is the level of students' current awareness and literacy skills of online reference services at Bicol College Main Library, along with navigational skills, database familiarity, information retrieval, and technological proficiency, which has 5 descriptions in each indicator. The second part of the survey questionnaire is the issues on the awareness of online reference services on Students' Information Literacy at Bicol College's main library. This may serve as another source of data to identify the issues encountered by the students on online reference services on Students' Information Literacy at Bicol College's main library. Through this instrument, the researcher can determine an online library campaign to be implemented at Bicol College to enhance students' awareness of online reference services. The following descriptive statistical measures can be used in analyzing the data. Descriptive statistics is the initial stage of analysis used to describe and summarize data. The availability of a large amount of data and very efficient computational methods strengthened this area of statistics (Sarmiento, 2021). Frequency count and percentage were used to interpret the data gathered on the challenges encountered in the awareness of online reference services on students' information literacy at Bicol College.

The data collected on the issues and challenges of online reference services on Students' Information Literacy at Bicol College main library was interpreted using frequency count, percentage and ranking.

RESULTS AND DISCUSSION

Current Status of Bicol College Main Library

The summary on the level of current awareness and literacy skills provides an overview of the respondents' proficiency across key areas such as navigational skills, database familiarity, information retrieval, and technological proficiency.

a. Availability of Online Reference Services

The findings from document analysis and survey responses revealed that the current status of the Bicol College Main Library demonstrates a strong commitment to providing academic support through a variety of online reference services. Platforms such as Infotrac and EBSCO are available to students along with tools like OPAC and an institutional repository. Access to these platforms is supported by QR codes, library signage and social media updates, particularly through the library's Facebook page. These strategies are designed to make scholarly resources easily accessible and user-friendly.

b. Infrastructure and Service Use in Bicol College Main Library

However, challenges remain in the technological infrastructure. Although the library layout is conducive to study, it suffers from a limited number of computers and unreliable internet connectivity, which hinder effective use of digital tools. These limitations restrict student access, especially during peak hours, and may increase dependency on personal devices—widening the digital divide. This supports Rafiq et al. (2021), who noted similar issues in digital access during the pandemic.

c. Promotion of Online Services and Awareness

In terms of promotion and awareness, the library makes efforts to inform students about available services through orientations, social media, email campaigns, and classroom visits to increase student awareness and visibility of services. Librarians should embed online reference tools into research workshops and course-related library instruction. Provide Hands-On Training.

The study by Rafi et al. (2019) reinforces the importance of continuous training to maximize student proficiency in using these digital tools.

2. Level of Students' Current Awareness and Literacy Skills of Online Reference Services at Bicol College Main Library

The following analysis highlights the overall awareness and literacy levels based on the ratings provided by the respondents.

a. Navigational Skills

The respondents demonstrated a consistent level of "Less Aware" across all variables measured in the study. Navigational skills and technological proficiency were rated with an average weighted mean of 2.03 and 2.04, which reflects moderate familiarity with digital tools but still requires further development and challenges in effectively accessing and utilizing information from various sources.

b. Database Familiarity

Database familiarity received the lowest average weighted mean of 2.00, which indicates that respondents struggle the most with understanding and using specialized databases for academic purposes.

c. Information Retrieval

Information retrieval obtained the highest average weighted mean of 2.05, which indicates a slightly better level of awareness in navigating online resources, though it remains insufficient for full proficiency.

d. Technological Proficiency

According to Anita (2024), digital literacy plays an essential role in preparing students for the future by enhancing their ability to navigate, evaluate and use information in a digital world.

The indicator Comfortable using devices to access online resources highlights a gap in students' ability to maximize technology for academic purposes with an overall weighted mean of 2.05, placing them in the "Less Aware" category.

These gaps suggest a pressing need for structured learning opportunities and capacity-building initiatives to help students build the foundational skills necessary for digital literacy. If these areas were improved, students may be fully aware of the essential skills needed to navigate, evaluate, and utilize online resources effectively.

3. Challenges Encountered in the Awareness of Online Reference Services on Students' Information Literacy

According to a study by Atoy et al. (2020), digital literacy is crucial for students' academic success, particularly when it comes to finding, evaluating, and using online information. In addition, a study by Pandey and Madhusudhan (2024) highlighted the importance of integrating practical digital literacy training into academic curricula to enhance students' skills in navigating complex online environments. Moreover, research by Mehta and Wang (2020) indicated that equipping students with digital skills through active learning can significantly improve their confidence and competence in accessing, analyzing, and utilizing online resources. These findings highlight the importance of digital literacy programs aimed at improving students' online navigation and research skills in order to support academic performance and long-term success.

The study identified several challenges that hinder students' effective use of online reference services, with the three primary concerns being Insufficient Training, Limited Access, and Inadequate Communication. These challenges are deeply interconnected and emphasize the systemic issues that impede students' ability to leverage digital tools for academic success. These challenges are crucial and should be addressed to improve students' digital literacy and ensure that they are fully equipped to engage with online resources. The challenges faced by students in utilizing online reference services are multi-faceted with the major issues of Insufficient Training, Limited Access, and Inadequate Communication forming the three primary barriers. These issues are compounded by factors such as Lack of Promotion, Perceived Relevance, Technological Barriers, Digital Literacy, Evaluation and Feedback, Awareness Gap, and the Lack of Integration in the Curriculum. The challenges students face in utilizing online reference services require a comprehensive action plan to address key barriers and enhance overall access and utilization. This plan should focus on providing training programs to equip students with the skills needed to navigate and effectively use digital resources, improving access through reliable infrastructure and tools and enhancing communication to raise awareness and encourage usage.

The challenges encountered by students at Bicol College in effectively utilizing online reference services have highlighted several areas that require immediate attention. These challenges have resulted in a general lack of awareness and proficiency which has hindered the academic progress of students and their ability to navigate and retrieve relevant information effectively. To address these issues, a comprehensive action plan has been developed. The action plans for improving the use of online reference services at Bicol College are supported by recent educational research, which stresses the importance of digital literacy, strong infrastructure, and ongoing support for students. Studies show that digital literacy workshops are crucial for helping students learn how to use academic databases effectively, improve their ability to evaluate information, and strengthen their research skills (Chan and Sung, 2025). In addition, incorporating online resources directly into the curriculum not only increases student engagement but also shows how these digital tools are useful in daily academic tasks, making them a natural part of students' learning (Smith, 2020). Research also highlights the need for regular feedback and evaluation to keep these programs effective, adapt to changing technology, and make sure all students have equal access. These strategies can help bridge the digital divide to ensure that students can effectively use online tools to support their academic success.

5. Action Plan

To address the challenges faced by Bicol College students in using online reference services, a comprehensive and multi-pronged action plan is proposed. Conduct live demonstrations and tutorials showing students how to use chat, email, databases, and digital help desks. Create video tutorials, infographics, and step-by-step guides on the library website and learning management systems. Future studies should measure not only awareness but also frequency of use, satisfaction, and effect on academic performance. Ensure services are mobile-friendly and available beyond regular library hours to support remote learners. Add feedback forms after online reference interactions to improve service quality. Encourage instructors to refer students to online reference services when assigning research projects. Provide ongoing professional development so librarians can effectively deliver virtual reference and digital literacy support. Comparative studies across multiple institutions would provide broader insights into best practices.

CONCLUSIONS

The study concludes that while Bicol College Main Library provides valuable online reference services such as Infotrac, EBSCO, and OPAC, students still face technological and skill-based barriers that limit optimal usage. The findings underscore the importance of improving the visibility, accessibility, and instructional integration of online reference services to better support students' academic research needs. Beyond awareness, future studies should examine usage patterns, user satisfaction, and the perceived impact of online reference services on academic performance. Moreover, multi-institutional and comparative investigations are recommended to establish evidence-based best practices for the effective implementation of online reference services in higher education. Hence, there is a pressing need for the college to implement strategic improvements that not only address technical limitations but also embed digital tools into academic instruction. It is important to invest in structured training, improve communication, upgrade facilities, and align instructional practices with digital advancements. With this, Bicol College can significantly enhance students' academic engagement and research capabilities.

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