

Interplay of Information Literacy, Library Engagement and Academic Performance Among State University Students

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DOI: <https://dx.doi.org/10.47772/IJRISS.2024.803197S>

Received: 24 June 2024; Revised: 11 July 2024; Accepted: 17 July 2024; Published: 20 August 2024

ABSTRACT

“Interplay of information literacy, library engagement and academic performance among state university students” unpublished master’s thesis, Liceo de Cagayan University, Cagayan de Oro City, December 2023.

This descriptive-correlational study assessed the information literacy skills and library engagement of all the students enrolled in the first semester of academic year 2022-2023 in a satellite campus of a state university in Alubijid, Misamis Oriental. The study further determined if the students’ information literacy and library engagement are significantly associated with their academic performance measured in terms of their grade point average for the semester. To answer the research questions, the study used survey questionnaires, which were content validated and tested for reliability. The generated data were statistically processed to facilitate data analysis and interpretation. Findings revealed that the students generally had very high level of information literacy, had high level of library engagement, and had good academic performance. The test of relationships revealed that there was no significant relationship between the students’ information literacy and academic performance. However, singly, information evaluation as a dimension of information literacy was significantly correlated with academic performance; although, the degree of the relationship was weak. Furthermore, there was no significant relationship between the students’ library engagement across all dimensions and their academic performance. Therefore, the students’ academic performance cannot be attributed to their level of information literacy and library engagement. However, the importance of information literacy and library engagement in promoting academic success among students cannot be dismissed considering the bulk of literature and studies that found those factors as predictors of students’ academic performance and considering the limitation of this study.

Keywords: Information literacy, library engagement, academic performance, library usage, library services and resources, academic achievement

INTRODUCTION

Information serves as the cornerstone for all academic endeavors. Information is one of the pillars in the development of relevant knowledge that can promote fair academic judgement. Also, information allows people in the academic sector to translate it into knowledge and practices that can improve students’ academic performance. Hence, libraries as repository of knowledge or information are indispensable in the academe as they provide the foundation for research, learning, and dissemination of knowledge. Libraries offer access to diverse resources, support academic pursuits, and contribute significantly to the overall educational experience of students. All academic institutions in partnership with their respective libraries promote information literacy to develop lifelong learners.

Information literacy is defined as an intellectual framework that enables individuals to recognize, locate access, evaluate, utilize, and transmit information. Information literacy empowers students to navigate and use vast information to achieve their educational goals. As posited by Ranaweera (2008), information literacy is strongly concerned with learning and in-depth thinking to learn concepts of education, which leads to positive learning outcomes. Making the promotion of information literacy even more important is the advancement of

technology that makes information more complex. Hence, educators and librarians now feel the need of equipping students with information literacy skills to engage them in their own learning for their academic success. Moreover, information literacy is not only crucial but also a necessary foundation for students' civic involvement, future work, health, and education. Every technological advancement, such as the metaverse and the interwebs, increases the relevance of information literacy. Effective information and technology use is essential in every one's daily life (Taylor and Jaeger, 2022).

Despite the claim that technological advancements have facilitated access to information, there is an ongoing concern that university students are not yet becoming information literate and are unable to locate and assess the information needed for academic tasks, problem-solving, and decision-making (Buzetto-Hollywood et al., 2018; OndariOkemwa, 2016). It has also been observed that students at higher level struggle with handling a lot of information (Ekwelem, Eke & Dim, 2009; Oyedokun, et al., 2019; Pelemo, et al., 2020). Lacking in information literacy skills, students' academic performance suffers. Information literacy is seen as the best weapon against poor academic performance, and school libraries have a role to play in helping students perform well in their studies.

Libraries invest so much in print and electronic resources to provide students information sources for their information needs. Hence, libraries exert effort in promoting the use of library services and resources. Students undeniably need these information resources for the completion of their varied academic tasks. Students will struggle academically when they are not provided with adequate resources for their studies. Hence, their full library engagement can have significant bearing on their academic success. Libraries, therefore, must encourage students to maximize the use of their services and resources to help students achieve positive learning outcomes.

However, after the three-year pandemic period, the researcher, as a school librarian, has noticed the diminishing use of the library services and resources as indicated by the data on library visit and book loans and the declining academic performance of the students as shown in their grade point averages in the previous semesters. Other than that, no assessment of the students' information literacy and library engagement has ever been done in the satellite campus, which is the research locale. These realities have encouraged the researcher to conduct this study to assess the students' information literacy and library engagement and to find if these factors have significant association with their academic performance.

RELATED LITERATURE AND STUDIES

Information Literacy and Academic Performance

The production of information-literate students is a top priority of educational institutions. The degree of information literacy persons possess will determine their ability to identify issues and resolve them successfully in both personal and professional settings. Since knowledge is vital to every element of life, these circumstances may be applied to many other contexts. Since the term "information literacy" was first used, according to Zurkowski, as referenced by Smith (2011), it has become clear that people require certain abilities in order to use information successfully. Although all formal education should include information literacy, students in higher education are frequently found to have inadequate information literacy abilities (Kaplowitz, 2005; Bury, 2011; Kim & Shumaker, 2015 as referenced by Smith, 2016).

Nowadays, no student can ever pursue the ends of his studies unless he makes use of his information literacy skills. To become lifelong learners, students do need these skills. Information literacy is a set of information needed for searching, retrieving, evaluating, and using information (Soleymani MR, 2014).

An information literate student critically assesses information and its sources and integrates relevant information his or her knowledge base and value system. An information literate student summarizes the key ideas to be extracted from the information gathered, articulates and applies preliminary criteria for evaluating the information and its sources, synthesizes key ideas to construct new concepts, and compares newly acquired knowledge with previously held knowledge to determine the value added, contradictions, or other distinctive characteristics of the information (Information literacy competency standards for higher education, 2000).

Students have been exposed to a basic information literacy course conducted by the library during orientation week. This course should be held on an ongoing basis by the faculties to ensure that their students are highly skilled in searching, evaluating, and utilizing reliable information sources. A new reform of educational system nowadays has more focused on measuring the students' learning outcomes. Hence, information literacy is essential so that students can demonstrate abilities in applying relevant knowledge and skills to achieve high standards of academic achievements (Mohd Salleh and Mohd Idzwan, 2011).

An essential step in students' academic work is evaluating data that they find online, in books, and in journals. Although not all information sources will be reputable, trustworthy, or well-researched, this does not mean they are not useful for the student's topic of study (Information Literacy Guide, 2021).

Furthermore, a study by Lanning and Mallek (2017) analyzed a variety of factors from current university students' experiences, such as demographic, educational, and economic factors, as well as current standing and grade point average (GPA), to assess the students' information literacy skills in relation to a 1000-level information literacy course that is part of the university's general education requirement.

Finally, according to regression studies, only current university GPA and standardized test scores have an effect on information literacy test results. Besides that, Anandhalli (2018) discovered that information literacy is one of the most critical factors for college students' academic success. A study by Banik and Kumar (2019) showed that increasing students' information literacy competence by one unit can raise their GPA by 0.012. As a result, the study recommended that nursing students enhance their information literacy skills to improve their academic performance. Information literacy abilities were found to be favorably connected to both students' writing scores and final course grades (Shao & Purpur, 2016).

Moreover, it was found that students excelled in information evaluation and identifying needs but struggled with legal/ethical concerns and information usage. As a result, giving all students an information literacy education is critical to providing a foundation for more balanced academic success (Bartol et al., 2018).

Information literate students are aware of the extent of their information demands and understand that there may be more than one source necessary to cover the scope of their study. Along with using different search tools, they also use divergent and convergent thinking when searching. They also understand the importance of data acquired using various techniques in various situations.

The American Library Association defines information literacy as a combination of skills that enable people to identify when information is required and how to find it, assess it, and utilize it successfully (Histle & Webb, 2017). Information literacy helps students complete research work and other types of school assignments. Students use information in every part of their academic life and beyond. Students have information demands, and information literacy gives them the ability satisfy those demands.

It is also crucial to know how to differentiate good information from dubious information. Beville State Community College Library said that in the modern context of quick technological development and an abundance of information resources, information literacy is becoming more and more crucial. Student are presented with a variety of information options in their academic work, professional life, and personal lives due to the environment's growing complexity. Information is accessible through libraries, neighborhood resources, special interest groups, the media, and the Internet. As information is sent to people more often in unfiltered formats, concerns are raised about its validity, dependability, and authenticity.

Moreover, students must learn how to evaluate and analyze information that is available in a variety of formats, including graphical, auditory, and textual. The varying quality and growing volume of information provide significant issues for society. Without a complementing set of skills required to successfully use information, the mere volume of knowledge will not by itself result in an educated populace. Information literacy also serves as the foundation for lifelong learning. Information is shared across all academic fields, all teaching settings, and all educational levels. With information literacy, students become more self-directed, take on more responsibility for their own learning, and extend their investigations and material mastery.

The purpose of higher education institutions is to foster lifelong learning. Colleges and universities lay the groundwork for continuing growth throughout a person's career, as well as in their roles as informed citizens and members of communities, by guaranteeing that every person has the intellectual skills of reasoning and critical thinking and by assisting every person in building a framework for learning how to learn. A vital aspect of and contributor to lifelong learning is information literacy. Information literacy competency broadens learning beyond traditional classroom settings and gives practice with self-directed research. Many regional and discipline-based accreditation groups increasingly regard information literacy as a crucial goal for college students since such literacy improves their capacity for analyzing, managing, and using information (Bevill State Community College Library, nd).

To put it in another way, information literacy skills provide students with critical thinking abilities that will enable them to become self-sufficient, lifelong learners. Students can adapt their knowledge from the familiar environment to the unknown with the help of information literacy skills. The proliferation of knowledge has made it increasingly obvious that students cannot manage and use available information if they lack information literacy skills. Students must acquire the crucial abilities in dealing with information to become autonomous lifelong learners. Since there is so much information available in modern culture, information literacy is crucial. Students must learn how to use information to become educated citizens; simply being exposed to a lot of information will not do this (ACRL, 2000 as cited by Ranaweera, 2008).

Library Engagement and Academic Performance

Libraries play an important role as a reliable and beneficial information provider in the students' academic success. The library is important to students because reading in the library can cultivate learnings and develop study habits. In the twenty-first century, the majority of institutions of higher learning place a strong priority on student engagement. A logical entry point for academic libraries to integrate library engagement elements with more general institutional initiatives to engage students and foster an engaging environment is its relevance to students' academic performance.

A more precise definition of library engagement is needed to match library goals with how other people outside of libraries interpret the idea. A clear definition of such construct will help library professionals think of their work in relation to student learning, engagement, and information literacy, which are intangible assets any institution is actively pursuing (Schlak, 2017). Since the 1990s, a lot of research has been done on the ways that students participate in their learning and the ways that institutional features enhance student engagement. Other researchers have placed more emphasis on the cognitive dimensions of engagement, motivation to engage, the transactional dimensions of engagement in learning environments, as well as institutional efforts to promote and measure student engagement, while some researchers have focused on student behavior as a factor in engagement.

According to Bråten and Strømsø (2003) as cited by Dahlen & Leuzinger (2020), when students combine information from numerous sources, several actions take place, including organization, comprehension, problem-finding, and problem-solving. Effective information synthesis has effects on students' day-to-day life, their capacity to participate in the job, and their academic schoolwork. The Lifelong Learning Study of Project Information Literacy highlights several "adaptable information practices from college" that recent graduates have described as crucial to their adjustment to the workforce (Head, 2014, p. 5 as quoted by Dahlen & Leuzinger, 2020).

A paradigm shift toward putting more emphasis on student participation and assisting them in realizing their full potential while attending university has occurred in recent years because of the competitive global climate among colleges. To maintain their competitive edge and to prove to their governing boards, the government, accreditation bodies, and other stakeholders that they pay attention to more than just research productivity, publications, grants, and teaching quality, universities have deemed improving student engagement as one of the most important aspects of their strategic goals (Cribb & Holt, 2010).

Furthermore, cognitive engagement is often cited as a critical component of an educational experience. Evidence shows that students who are actively engaged with learning materials demonstrate greater learning

gains than those who are passively engaged. Indeed, research emphasizes the importance of engagement for student learning and academic success (Barlow, Brown, Lutz, et al., 2020). Cognitive engagement, as defined by Fredricks et al. (2004 as quoted by Barlow et al., 2020), is the psychological commitment that students make to learning, which can range from memory to the employment of self-control techniques to enable deep comprehension. In fact, the Seven Principles of Good Practice in Undergraduate Education include cognitive engagement at its core (Chickering & Gamson, 1987 as cited by Barlow, et al., 2020). The significance of cognitive engagement to learning also emphasizes active learning and interaction between students and instructors. Achievement has been directly correlated with deep cognitive involvement (Greene, 2015). Students must transition from superficial to meaningful cognitive processing to develop cognitive engagement. While shallow processing encourages rote learning, which is most often caused by a lack of strong engagement with learning materials, deep cognitive processing allows for the type of mental connections and information elaboration that create higher-level cognitive learning outcomes (Christopher, Walker, Greene, & Mansell, 2005 as cited by Barlow et al., 2020).

In addition, just as important and essential to student achievement is comprehending and outlining objectives for students' emotional learning outcomes. In library education, recognizing the significance of affective information literacy is crucial when students start putting their newly acquired cognitive abilities to use. The main reasons why learning in the affective domain is still undervalued, according to Pierre and Oughton, are that emotions are still muddled and challenging to teach, understand, and quantify. Behavior modification is no longer popular, and values and attitudes are increasingly ingrained in different cultures and belief systems, making them challenging to normalize (2007, pp. 7 –10).

According to Cahoy & Schroeder (2012), “the affective domain is a complex and often nebulous area in which to design instruction” (p. 7). This is a resonant truth, and yet there are strategies that can be employed to help students build positive, affective outcomes relevant to information literacy and learning.

Some researchers have posited that engagement can be thought of as a meta-construct—one that can be broken down into the components of behavior, emotion, and cognition (Fredricks et al., 2004 as cited by Barlow, et al., 2020). Behavioral engagement entails involvement in learning and academic tasks, as well as participation in library or school-related activities. Emotional engagement encompasses students' affective response, or commitments, to activities in their learning environment. Cognitive engagement refers to the level of psychological investment in the learning process exhibited by the learner (Fredricks et al., 2004 as cited by Barlow, et al., 2020).

Academic Performance

At its root, the idea of student achievement is rather straightforward. Students go to school; therefore, their success depends on how well they perform academically when they are matriculating. Student performance has been connected to indicators of both individual and institutional success in the classroom (Kuh et al., 2006 as referenced by Walker & Pearce, 2014). Standardized test scores, grade point averages (GPAs), and credit hours acquired have become indicators of student performance at the individual level, while indicators at the institutional level include retention, persistence, graduation rates, and the number of degrees conferred over time.

Powell (1992, quoted by Oakleaf, 2014) provided a summary of the research showing a correlation between library use and college grades and student persistence rates. However, he based his judgments on research that, for the most part, ignored student aptitude or institutional elements like selectivity. Students who took part in library workshops had much higher passing rates in English and ESL classes, according to a more recent study at Glendale Community College in California (quoted by Kuh & Gonyea, 2003), although once again, this study did not take into consideration student aptitude. The correlations between library and student performance are less evident when taking into account variables that might affect performance. Additionally, Ory and Braskamp observed beneficial associations between library use and improvements in critical thinking (Kuh & Gonyea, 2003).

Banleman & Adjoa (2017) conducted a study showing that students who used the library had higher CGPA and higher academic performance than non-library users. The findings further revealed that students' use of the library was statistically significant to student grade point average (CGPA), and that access to electronic resources was most beneficial resource students should have to attain excellent academic performance.

Academic libraries contribute significantly to knowledge generation and support a diverse range of knowledge seekers. Indeed, academic libraries have been dubbed the "heart" of the university since they serve as a hub for students and professors to do research and expand their knowledge. Any academic library's primary function is to gather, process, store, disseminate, and use information to provide services to the academic and research communities (Soria et al., 2013; Wong and Webb, 2011). Librarians and library personnel offer a wide range of services to their patrons to meet their different needs and interests. Faculty and students both rely significantly on the library for information that is required to pursue their individual and communal goals. Because it is required at all phases of human growth, information is currently regarded as the fifth element of production. De Jager (1997) demonstrated a positive association between student course grades and book loans in a more recent study. His study, however, only included 240 students and two courses.

In addition, the study of Banleman & Adjoa (2017) concluded that there is evidence for the importance of libraries in students' academic achievement and performance. There are numerous variables that can be used to assess the impact of library use on student learning and academic achievement. Borrowing books, attending library workshops/sessions, using an automated library system, and using library services such as one-on-one sessions, reference services, or assistance are all examples of indicators. According to this study, library usage (borrowing books, using internet resources, and visiting the library) has a favorable impact on students' academic success and performance.

The conceptual foundation of the study, which includes the creation of the questionnaires, is built using the aforementioned literature and studies. The various notions and ideas also aid the researcher in producing more insightful discussions and conclusion that are pertinent to the current investigation.

Objectives

This study sought to determine the relationship between the participants' level of information literacy and library engagement and the participants' academic performance.

All students of Bukidnon State University Alubijid Campus, who are officially enrolled for the first semester of academic year 2022-2023, were chosen as the participants of the study with a total population of three hundred (300).

This study only focused on the Interplay of Information Literacy, Library Engagement and Academic Performance among state university students. Academic performance was measured through the participant's general average grade.

Specifically, this study sought to answer the following queries:

1. What is the participants' level of information literacy in terms of the following dimensions:
 - 1.1. Information Search,
 - 1.2. Information Evaluation,
 - 1.3. Information Processing, and
 - 1.4. Information Communication and Dissemination?
2. What is the participants' level of library engagement in terms of the following dimensions:
 - 2.1. Cognitive,
 - 2.2. Affective, and
 - 2.3. Behavioral?
3. What is the participant's academic performance?
4. Is there a significant relationship between the participants' level of information literacy and their academic performance?

5. Is there a significant relationship between the participants' level of library engagement and their academic performance?

Null Hypotheses

Based on Problems 4 and 5, the null hypotheses were tested at 0.05 level of significance:

H₀₁. There is no significant relationship between the participants' level of information literacy and academic performance.

H₀₂. There is no significant relationship between the participants' level of library engagement and academic performance.

METHODOLOGY

The study was focused in one of the State Universities in Misamis Oriental. Following the protocol and prior to the conduct of the data gathering, the researcher secured formal permission from the Campus Head in one of the satellite campuses of State University in Misamis Oriental. A formal letter was written to secure consent of the conduct of the study. Once approved, a consent letter was attached in the questionnaire for the respondents to read and sign.

In addition, with their approval, the researcher conducted a briefing regarding the scope and the purpose of the study, then they were asked to sign the informed consent form. The researcher personally collected the data by asking the participants to answer the questionnaire. Great care was used to ensure that the respondents' responses to the survey items remained anonymous. The survey questionnaire was personally administered by the researcher and was retrieved immediately on the same day. Moreover, Ethical considerations were observed by ensuring that the participants' responses were kept confidential.

Upon completion of the survey questionnaire, the researcher transcribed the responses of the participants. Data were analyzed using the quantitative approach. To have an accurate interpretation of the obtained data, the following statistical tools were employed: Frequency and Percentage were used to determine the academic performance of the participants. Weighted Mean was utilized to determine the result of the participants' Information literacy and library engagement. Pearson's Product Moment Correlation Coefficient was used to determine the relationship between the participants' academic performance and their Information literacy and library engagement levels.

In addition, conducting a comprehensive data analysis on a specific state university's student population would provide accurate and specific insights into this correlation.

RESULTS AND DISCUSSION

This study determined the students' level of information literacy (information search, information evaluation, information processing, and information communication and dissemination), library engagement (cognitive, affective, and behavioral), and academic performance. The study further tested if the students' information literacy and library engagement were significantly associated with their academic performance. This descriptive-correlational study that involved randomly sampled 300 students enrolled in the first semester of AY 2022-2023 in a state college used two adapted survey questionnaires to measure the students' information literacy and library engagement and their grade point average during the previous semester to determine their academic performance. Both descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (Pearson's Product Moment Correlation Coefficient) were used to process the data for analysis and interpretation.

The salient findings of the study are as follows:

1. The students generally had very high level of information literacy. By skill, the students had very high level of information evaluation and information communication and dissemination and high level of information processing.
2. The students generally had high library engagement. By dimension, the students had very high cognitive and affective library engagement and high behavioral library engagement.
3. The students generally had good academic performance with the highest percentage of them having very good academic performance and the lowest percentage having poor academic performance.
4. There was no significant relationship between the students' information literacy and academic performance. However, singly, information evaluation as a dimension of information literacy was significantly correlated with academic performance; however, the degree of relationship was weak.
5. There was no significant relationship between the students' library engagement across all dimensions and their academic performance.

CONCLUSION

Based on the findings of this study, there is not enough statistical evidence to support the assumption that the students' information literacy and library engagement are significantly associated with their academic performance. That is, the students' academic performance cannot be attributed to their level of information literacy and library engagement. However, the importance of information literacy and library engagement in promoting academic success among students cannot be dismissed considering a bulk of literature and studies that found those factors as predictors of students' academic performance and considering the limitation of this study.

One limitation of this study was the use of self-assessment instruments. It was very likely that the students overrated themselves in terms of their information literacy skills and library engagement. They all had high to very high ratings for all indicators across all dimensions of the variables. Their self-ratings did not parallel their general point average, thus the non-significant correlation between the independent and dependent variables of this study. Such limitation of the study weakens the conclusiveness of the findings.

Nonetheless, it is of particular interest to know that the students do possess information literacy and use the print and electronic resources of the library for their information needs. Information literacy skills are crucial in the students' effective navigation and utilization of information in different formats especially in today's digital age. With the exponential growth of information and the prevalence of misinformation, it is essential for the students to develop the skills necessary to evaluate, access, and apply information critically. Moreover, the utilization of library services and resources is also crucial in their academic life. Undeniably, students need the library for their information needs; thus, the use of the library boosts students' academic success.

RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations below are presented.

School Administrators. They may intensify their support for library-related initiatives that promote students' information literacy, library engagement, and academic performance. They may as well extend full support to the library personnel in their pursuit for professional growth so as to better equip them with competencies that will help them effectively implement initiatives or programs that address issues related to information literacy, library engagement, and academic performance.

Librarians. They may collaborate with the faculty in crafting, implementing, and evaluating initiatives or programs that facilitate among students the development and enhancement of their information literacy, library engagement, and academic performance. Further, they may continuously improve the library's services and resources to sustain the interest of students in engaging themselves in library-related initiatives or programs that will further enhance their information literacy and boost their academic success.

Faculty Members. They may strengthen their collaboration with the library through the faculty library committee for the advancement of students' information literacy and library engagement, which may support students in their academic work.

Students. They may further equip themselves with the necessary information literacy skills to maximize the critical use of information available in the library to boost their academic performance.

Future Researchers. In light of the limitation of this study, they may consider assessing students' information literacy skills and library engagement in an objective manner. Instead of using self-survey tools, they may develop objective assessment tools such as knowledge test. Also, they may conduct a comparative study of the information literacy skills and library engagement of students when they are grouped according to their level of academic performance to establish any significant differences. They may also explore other personal factors in relation to students' academic performance. These personal factors may include other literacies and engagement in library initiatives or programs other than the promotion of the use of its collections.

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