

Enhancing Academic Success through Utilization of Library Resources in a Public University in the Philippines

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Abstract

The library is a pillar in shaping the academic landscape offering a wealth of resources and services for student learning. This study correlated library resource use with undergraduate academic performance, sampling 800 clients across academic years 2015–2016 and 2018–2019. It examined the frequency of library resource use in relation to students' GWA, dean's list achievement, and board exam passing rates. Findings showed a strong positive correlation between GWA and the frequency with which library resources were used. It was discovered that students used the library to check out books, periodicals, and internet resources. The frequency of accessing library resources and making it to the dean's list were significantly correlated. Students used the library to read, research, and prepare for tests and quizzes as part of their course requirements. Additionally, this study found a strong and moderately favorable correlation between students' success on licensing exams and how frequently they used the library's service like utilizing library resources, such as reviewers and references, to enhance their understanding of what is required to carry out requirements and activities. This study, conducted in the southern region of the Philippines, provides fresh perspective on the evolving dynamics and regional nuance of library use that goes beyond the traditional services.

Keywords: Library, library resources, library utilization, student achievement, student success

INTRODUCTION

Academic libraries are essential to the higher education institutions' fundamental mission. Libraries have an inherent duty to serve their users' educational and research needs by offering information services, space for advanced study and research, and other resources. It encourages an academic environment for teaching and learning, improves the quality of education at various levels, enhances the research outputs of the faculty through helpful information resources, and cooperates with other institutions concerning information resources.

As an integral and preeminent partner of higher education institutions, the study locale, which

is a public university, “provides accessible information and resources through the updated collection and competent staff, and an environment which facilitates learning” to support the vision, mission, and academic goals of the university (Library Manual of Operations, 2019, p.7). It comprises four libraries, namely, the University Main Library, which holds the principal collection, the Graduate Studies Library, the College of Law Library, and the Elementary School Laboratory Library. All processes are ISO 9001-2015 certified, and approved by the Board of Regents on September 2, 2016, guided by the Library Committee, which was created on April 8, 2005, and assessed by accrediting agencies that compel regulatory and statutory standards.

This library uses the Follet Destiny Library Management (DLM) automated system, featuring the Online Public Access Catalog and integrating various library services. It caters to flexible study and learning spaces at the Learning Commons providing an onsite café and lounges with 20 computers in the net zone and 130 tablets, and two discussion rooms with DLP and Smart TV. The library staff regularly attends webinars or trainings, and the library establishes consortiums and engages in networking, resource sharing, and cooperative library activities.

In the constantly changing landscape of library services and prompted by the new normal, this library implements the following remote service initiatives: Online Library, Document Delivery Service (DDS), Virtual Reference Service (ViRA), and modified procedure in borrowing and returning library materials. Furthermore, the library programs and information services strive to advance quality through delivering the resources for teaching and research to various stakeholders.

Some studies show that using the library increases the chances of students completing their studies in four years (Soria, Fransen, & Nackerud, 2017); students who utilize the library perform better academically and have a higher academic success than non-users (Banleman & Adjoa, 2017); it is a beneficial source of information regarding the student’s academic performance and achievement (Rodrigues & Mandrekar, 2020); availing of library or internet resources in research activities under student factors and school factors like adequacy of relevant library books and materials influence licensure examination results (Herrero, 2015), and many others.

The present study delved into the relationships between academic library use and student performance. A review of existing literature shows that many studies found that students who use library resources tend to perform better in college and have a higher academic performance than non-library users (Rodrigues & Mandrekar, 2020; Soria et al., 2013). Moreover, Banleman and Adjoa (2017) found that the students’ use of the library has a statistically significant impact on their grade point average where electronic resources are the most helpful means for students to achieve academic attainment and growth. The latter finding corroborated the study of McCarthy (2017), which revealed that online students who accessed library resources remotely received a grade almost 15 percentage points higher than other students who did not use library materials online.

Based on the aforementioned insights regarding the correlation between library engagement and academic success, the researchers embarked on a comprehensive study within a public university situated in the southern region of Mindanao. The study aimed to address the following research inquiries:

Research Questions

1. What is the relationship between the frequency of using library resources and students’ General Weighted Average (GWA);
2. What is the relationship between the frequency of using library resources and student’s achievement as a dean’s lister; and
3. What is the relationship between the frequency of using library resources and the student’s passing of the board exam?

Theoretical and Conceptual Framework

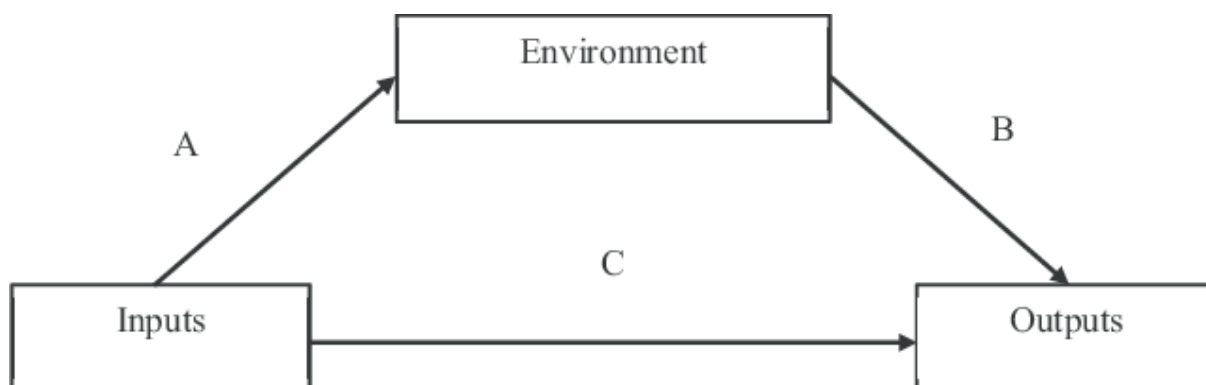
The theoretical framework of this study draws upon self-determination theory (SDT), a comprehensive macro-theory encompassing human motivation, personality development, and well-being. SDT emphasizes the significance of volitional or self-determined behavior and delves into the social and cultural conditions fostering such behavior (Deci & Ryan, 2012). Furthermore, Ryan (2009) expounded that at its core, SDT posits three fundamental and universal psychological needs—autonomy, competence, and relatedness—that are deemed essential for vital and healthy human functioning, transcending cultural variations and developmental stages.

In the context of this study, individuals, specifically students, are inherently motivated by these psychological needs. The library, as a dynamic space, plays a pivotal role in addressing and promoting these needs. It serves as a platform where students can access resources and services that contribute to their competence, fostering a sense of connection or relatedness, and subsequently empowering them with autonomy. By offering resources, services, and an environment that caters to these psychological needs, the library becomes a facilitator of the social conditions necessary for optimal student functioning. This aligns with the principles of SDT, providing a theoretical foundation to understand the motivations behind students' engagement with library resources and services in the pursuit of academic success.

Likewise, Astin's input-environment-output (I-E-O) model is also applied in this study. This model posits that a college comprises three components: student inputs, the college environment itself, and student outputs (Kot & Jones, 2015). This assumption was based on the I-E-O model developed by Astin (1970, 2012), where college outcomes are viewed as functions of three sets of elements: inputs, the academic and social experiences that students bring; environment, the full range of library resources, and experiences that students encounter; and outcomes, students' academic success as they exist after college. This study uses the I-E-O model as its theoretical framework since it makes distinguishing between input, environment, and outcome easy.

Figure 1 presents a diagram of the I-E-O Model.

Figure 1. *The Input Environment Output Model*



According to Astin (1991), inputs are personal qualities that the student brings to college; the environment is the student's actual experiences during college; and outputs are the student's developmental aspects that the educational institution seeks to influence. The environment also refers to the various "things" designed to promote the desired outcomes (Astin & Antonio, 2012).

The I-E-O Model by Astin is adopted in this study to explain the relationships between students' achievement and their input and learning environments. Input factors considered in this study are the student's utilization and frequency of using library resources. Library resources are materials, both print and non-print, in all subject areas, which support the program offerings of the University and are appropriate to the needs and suited to the interests of concerned patrons (University Library Manual of Operation, 2019, p.4). Print resources include books, journals, magazines, newspapers, encyclopedias, manuscripts, etc; while non-print materials include online journals, e-books, databases, compact discs, and other electronic and audio-visual materials.

The library is part of the environment that facilitates the production of the output, which is in this case, academic performance.

The outputs consist of the student's academic performance as measured by their General Weighted Average (GWA), in terms of being included in the dean's list, and passing the board exam. According to this model, environments can be changed to provide students with a better experience and improve their academic success, and both inputs and environmental experiences have an impact on outputs (Banleman & Adjoa, 2017). This study focuses on the relationships between inputs and environments on outcomes.

Review of Related Literature

The pivotal role of academic libraries in shaping students' educational experiences has been a subject of in-depth exploration by scholars and researchers. Numerous studies conducted by academic librarians sought to gauge the institutional impact of libraries on student success. Studies have highlighted that correlation does not prove the cause because there were limitations identified: differences between GPAs in subject areas, timeframes used, sample size collected, student privacy, and the meanings of the results (Sterner, 2021). Studies were also conducted regarding accountability and its impact on the academic community due to the large funds allocated to libraries. These studies revealed a connection between student library use and improved GPAs and retention rates. The results may help stakeholders understand the academic library's worth and help further incorporate library services into course curriculum (Thorpe et al., 2016; Allison, 2015) and possibilities for partnership between the librarians and teachers to plan programs for students with low GPAs (Puarungroj et al., 2018). These hold the potential for a myriad of possibilities and initiatives aimed at enhancing academic performance and fostering a conducive learning environment.

This literature review also considered the online services offered by libraries, specifically access to online library resources and student success. The same pattern was found that more successful students are accessing more library resources (Nurse et al., 2018), users' interest in studies has been enhanced, the e-resources have played a significant role in the timely completion/submission of their study-related assignments, that e-resources have laid a positive impact on the performance of users in academic examinations and competitive examination (Nazir, 2019), and use of online resources from libraries was a strong predictor of academic standing, one-term retention, and semester grade point average (GPA) (LeMaistre et al., 2018; Okorie et al., 2018). The study of Carvalho e Rodrigues and Mandrekar (2020) also assessed the students' satisfaction with academic library resources and services, revealing a substantial and noteworthy correlation between library usage and students' academic performance, underscoring the crucial role libraries play as reliable information providers in fostering academic success. Cherry (2013), Stemmer (2016), and Nagata (2007), have consistently found a positive correlation between library use and academic success. These studies, which used various measures of library use and academic achievement, all concluded that students who use the library more frequently and for specific purposes, such as research, tend to have higher GPAs and better educational outcomes. This suggests that library use is a significant factor in student success.

Since the development of ICT, libraries have used physical and digital technologies to assist learning and research to satisfy the needs of academic institutions, faculty, students, researchers, and others, individually and collectively. For instance, access to Open Educational Resources can be obtained by finding pertinent scholarly web resources, locating them, and making them accessible to the user

community through a user-friendly information gateway. Tzoc (2016) provides practical examples of how academic libraries can collaborate with faculty to support digital scholarship initiatives, further demonstrating the potential of these institutions to meet the diverse needs of their users.

This study proposed that academic libraries greatly influence student experience. The same logic applies to electronic resources. This is because, in addition to the library, a variety of other elements, including the students' attitudes and aptitudes as well as academic teachers' abilities, have a role in students' academic performance.

Lastly, with the advent of smartphones and accessibility of internet services, it is observed that students are not enamored with going to the libraries anymore. They feel that it is more convenient to access information using the wifi or cellular data from the comfort of their homes or cafès (Matthews, 2014). Hence, the need for this study so that better library facilities could be an inviting reason for students to go to libraries (Wallace, 2019).

It is on the above premise that the purpose of this study was conceptualized to determine the relationship between the use of library resources on undergraduate student's academic performance, specifically, the relationship between the frequency of using library resources on students' GWA, achievement as a dean's lister, and passing of the board exam.

METHODOLOGY

This study used the correlational descriptive research design. Descriptive research aims to characterize a population, circumstance, or phenomenon, in a methodical and precise manner (McCombes, 2019). This research is usually defined as quantitative research, the process of gathering and evaluating numerical data (Bhandari, 2020).

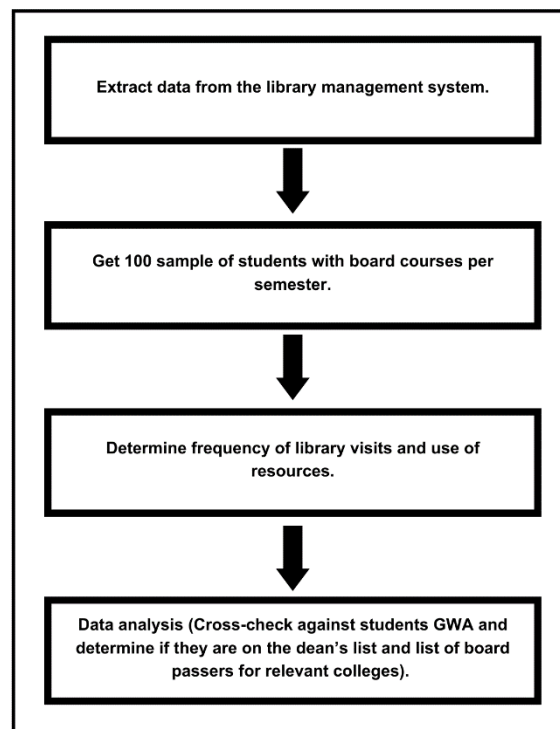
This research design determined the relationship between the frequency of using library resources and students' GWA, student's achievement as a dean's lister, and passing of the licensure exam. The quantitative research method was used in analyzing data on the frequency of using library resources and the student's academic performance.

The participants of the study were the library student-patrons who were dean's listers and board exam passers from SY 2015-2016 to SY 2018-2019. The data for the student's GWA and dean's lists were obtained from the Office of the University Registrar. The board exam passers were taken from the colleges with board courses, namely, College of Nursing, College of Education, and College of Administration. The data for the frequency of library utilization and the services they availed were extracted from the library management system.

This study used purposive sampling to determine the total number of library patrons for the last four years. A total of 800 library patrons (100 students per semester) from SY 2015-2016 to SY 2018-2019 were sampled. The library patrons were then cross-checked against their GWAs. Then researchers checked if they were on the dean's list and list of board passers for the relevant colleges. In this way, the study determined if the frequency of using library resources would correlate with the GWA, dean's list, and licensure passers.

Raw data were arranged from the high, middle, and low frequencies of visits. For the statistical treatment, Pearson Product Moment Correlation coefficient was used to establish the relationship between the variables for research problem 1 because the two sets of data were numerical; frequency was discrete while GWA was interval numerical data. It satisfied the assumptions of normality and linearity of data.

Biserial point correlation was used for research questions 2 and 3. To conduct the biserial point correlation, the following assumptions were used: a) data must be free from outliers, b) data must be dichotomous in that 0-1 were used for dean's list or not dean's list, and licensure exam passer or not, and c) data must pass the normality test using Shapiro-Wilk's test, and equality of variances using Levene's test.

Figure 2. *Flowchart of the Sampling Process*

To validate the results of the statistical treatment, an online interview was conducted with library patrons with high, middle, and low-frequency visits. An interview is a form of qualitative research where participants are asked about their views, experiences, beliefs, or motivations (Gill, Stewart, Treasure et al., 2008). The interview questions used in the study were anchored on the three research problems. Participants were asked about the purpose of their visits; resources and services utilized and availed; and whether their library visits helped them in their General Weighted Average (GWA), getting into the dean's list, and passing the licensure exam.

ETHICAL STATEMENT

After approval from the Research Ethics Board was obtained, the University records, specifically the number of library users, the dean's list, and the list of board passers from the different colleges from 2015-2019, were taken and analyzed. Hence, no humans were involved in the study. There were no known risks identified in the data used in this study. People who would read the results of this study would have empirical knowledge of the vital contribution of the University library and its services for its stakeholders, especially the impacts it may have on the performance of students. All information taken from the study will not entail the names and other identifying information used in the discussion of this study. Quantitative data were shared with the team of researchers. All these data and their interpretation were used to determine the correlation between library use and academic performance.

RESULTS AND DISCUSSION

Correlation between Frequency of Using Library Resources and Academic Outcomes

Table 1 shows the results of the computation. The Pearson Product Moment Correlation coefficient of 0.769 with a p-value of 0.00 indicates a significantly high positive degree of relationship between the frequency of using library resources and GWA. A Shapiro-Wilk's test ($p > 0.05$) (Shapiro & Wilk, 1965; Razali & Wah, 2011) and a visual inspection of their histograms, normal Q-Q plots, and box plots showed that the data were approximately normally distributed, with the skewness of 0.254 (SE = 0.374) and kurtosis of -1.33 (SE = 0.833) for the frequency of using library resources; and skewness of 0.520 (SE = 0.374) and kurtosis of -1.059 (SE = 0.733) for the students' GWA.

Table 1
Correlation between Frequency of Using Library Resources and Academic Outcomes

	Correlation Coefficient	p-value	Degree of relationship	Interpretation
General Weighted Average (GWA)	0.769	0.00	High	Significant
Dean’s lister	0.819	0.00	Very High	Significant
Passing of board exam	0.592	0.00	Moderate	Significant

Legend:

0.00 – 0.20 Very Low 0.41 – 0.60 Moderate 0.81 – 1.00 Very High
0.21 – 0.40 Low 0.61 – 0.80 High

The finding above corroborates Banleman and Adjoa’s (2017) study, which found that students who utilize the library had a higher CGPA and academic achievement than students who do not, according to the findings. Similarly, the result of the study is parallel to Allison’s (2015) and Goodall and Pattern’s (2011) studies which showed that book borrowing and the use of e-resources in the library had a positive correlation with students’ grades or GPAs. Students’ library use is statistically essential to their general weighted average. This study revealed that students visit the library to borrow books, and journals and access the internet. Students visit the Filipiniana, Circulation, and Reserve sections of the library to borrow professional titles for their various subjects. Education students frequently borrow books on general education courses (e.g., *Purposive Communication, Understanding the Self, The Life and Works of Rizal, Philippine History, etc.*) at the Filipiniana Section. Nursing students borrow books on professional education courses (e.g., *Fundamentals of Nursing, Health Assessment, Nutrition, Pediatric Nursing, etc.*) at the Circulation and Reserve Sections. Nursing students also go to the Periodical section to read journals such as the *American Journal of Nursing (AJN)* and *Philippine Journal of Nursing*, and NCLEX-RN reviewer at the Reference Section. Accountancy students usually use the reading areas on the third floor of the Main Library to study. Students go to the Net Zone of the Learning Commons to use the computers to search for information on the web. Some students also read newspapers in the Periodical Section.

Based on written accounts of students representing the high, middle, and low-frequency users, and from the BSE Mathematics, BS Education in Biological Sciences, BS Accountancy, Bachelor of Elementary Education, BSE in Biological Sciences, Bachelor of Physical Education, and BS Education, are the following reasons why they have high or low GWAs:

Frame 1. Students Responses Why They have High or Low GWAs

S1	High-frequency users	I have several reasons why I have good grades. However, one of those is that I study well and I maximize available resources in the library or on the internet.
S2		I have a high GWA because I focused on my studies and set aside matters that are unrelated to my goals. I make studying my hobby, so whenever I got free time, I always go to the library to read and read. I am a wide reader.
S3		I have been studying well.
S4	Mid-frequency users	I think the reason why I had high grades during my college days was my consistency in doing my best to understand the lessons. In fact, every time I had difficulties in my studies, I visited the library to look for books that could help me understand the lesson more easily.
S5		I think the best reason why I got a higher GWA, is that I have focused on the discussion with my professors. Also, having an excellent study-period habit helped me a lot.
S6		I have a high GWA because I study a lot to prepare myself for the CPA board exam. Also, I love representing the school in the academic competitions and I used that as motivation to be one of the top in the class.
S7	Low-frequency users	The reason why I got a low GWA is a lack of study.
S8		Study habits and the subject itself.
S9		I work hard for my grades. I utilize every method/means I can get just to suffice what is required of me to finish. One of which is, the utilization of the available sources/resources in the library.

The point-biserial correlation coefficient is 0.819 at a p-value of 0.00, showing a very high positive degree of relationship, which means there is a significant correlation between the frequency of using library resources and achieving the dean’s list. Using the Shapiro-Wilk’s test ($p > 0.05$) (Shapiro & Wilk, 1965; Razali & Wah, 2011) and a visual inspection of their histograms, normal Q-Q plots, and box plots showed that the data were approximately normally distributed, a skewness of 0.202 (SE = 0.324) and kurtosis of -1.108 (SE = 0.721) for the student’s achievement as a dean’s lister.

The statements of S1, S2, S4, and S9 show their awareness of how valuable the library is. The finding here is similar to that in the study of Carvalho e Rodrigues and Mandrekar (2020), which revealed a large and striking link between library use and student’s academic performance and success. Students use the library to read, study for quizzes and exams, and conduct research as part of their course requirements. Students visit the library for their thesis, projects, and group activities. Some students and faculty members use the library’s discussion room or viewing room as a venue for oral defense and consultation. Even if there are spaces for students to study inside the campus because the university provides shaded tables and benches in the different buildings, if they prefer a quiet study area, there are cubicles on the different floors with spaces for individual reading areas and note-taking. There are also enclosed rooms for small group discussions. The library also lets students borrow electronic tablets and desktop computer units to do research, which they can email to themselves.

Nevertheless, when students were asked the reasons why they were or not on the dean’s list based on the high, middle, or low frequency of library visits and various academic programs with licensure examinations, the responses were:

Frame 2. Students’ Responses Why They were or Not in the Dean’s List

S1	High-frequency users	For me, I was able to be dean’s lister because of my dedication and hard works in my study but with the help of all the available resources in the library and on the internet.
S2		Why I was on the dean’s list? 1. I set goals and stick to them no matter what. 2. I have good study habits 3. I verify the information. I often do research in the library to get various ideas from different authors and compare them. 4. I do not work hard; I work well. I employ different strategies to learn fast.
S3		I am doing my best to maintain on the dean’s list by studying and complying with the requirements needed.
S4	Mid-frequency users	The accountancy program is very competitive. Thus, not being on the dean’s list is unusual. The environment of the program itself will drive you to be on the dean’s list.
S5		I was one of the dean’s lists during my college days because I learned to use my time productively. I learned to spend my vacant hour visiting the library, making my assignments ahead of time, and finding good resources for my reports which helped me attain high grades.
S6		I think doing/giving my best during the discussion, exams, and activities is one of the many reasons why I have been on the dean’s list.
S7	Low-frequency user	Because I do not Excel in academics.
S8		Study habits and teacher teaching factor, in my entire stay on campus, I was not able to be in the Dean’s List only once. Entirely, I am glad that i made it to the Dean’s List.
S9		I was part of the dean’s list because of my diligence, perseverance, and motivation to be on the list. It takes amount of hard work, effort and time to be a dean’s lister.

The majority of high and mid-frequency users highlighted that their inclusion in the dean’s list is attributable to their consistent use of library resources. However, the response from S9 indicates that even if students were low-frequency users of the library resources, they may also be members of the dean’s list. This implies that there could be other factors that determine academic success, like the personal qualities that S9 mentioned. Variables that may affect academic success include motivation, time devoted to studies, and quality of teaching (Wells, 1994).

Based on the correlation of frequency of using the library resources and students’ passing of the licensure exams in nursing, accountancy, and education, using point-biserial correlation at 0.05, findings show that the correlation coefficient is 0.592 at a p-value of 0.00 indicates a significant moderate positive degree of relationship between frequency of using the library resources and students’

passing of the licensure examinations. A Shapiro-Wilk’s test ($p > 0.05$) (Shapiro & Wilk, 1965; Razali & Wah, 2011) and a visual inspection of their histograms, normal Q-Q plots, and box plots showed that the data were approximately normally distributed, a skewness of 0.348 (SE = 0.374) and kurtosis of -0.953 (SE = 0.711) for the students’ passing of board exam (Cramer, 1998; Cramer & Howitt, 2004; Doane & Seward, 2011).

Herrero (2015) corroborates the finding above. Her study revealed that student factors (interest in the accounting program, time spent studying lessons, and use of library/internet resources in research activities) as well as home/family factors (financial support from family, parental involvement in studies, motivation, and encouragement) all have a significant impact on performance. In this study, albeit the present study only focused on the use of the library, other factors are also as crucial in students passing the licensure examination. The use of library resources such as references, and reviewers helps improve the students’ knowledge needed to perform tasks on the job competently and safely.

The university library houses adequate references used in the licensure exams. These references are used by the college faculties in their teaching. For nursing, these references are the foundation courses for nursing and professional nursing practice, community health nursing, care of the mother and child, and care of clients with physiologic and psychosocial alterations. For accounting, library references include financial accounting and reporting, auditing, taxation, and regulatory framework for business. For education, the references in the library are general education (English, Filipino, Mathematics, Natural Sciences, and Social Sciences), professional education, and field of specialization for secondary levels; the elementary level covers only general education and professional education courses.

However, regarding the reasons why students passed or did not pass the licensure examinations, the high, middle, and low-frequency visitors have the following responses:

Frame 3. Students Responses Why They Passed or Did Not Pass the Licensure Examinations

S1	High-frequency users	Available resources + Study = Passing I enrolled at a Review Center for my Licensure Examination, and I received a lot of suitable materials plus the one I had from college.
S2		I passed the licensure exam because I took my studies seriously back then. Moreover, I read a lot. I have read so many books in the library, and most of what I learned there became my stock knowledge. During the LET, 30% of my answers are from my stock knowledge. It really helped me a lot in topping the LET.
S3		Due to pressure
S4	Mid-frequency users	I passed the licensure exam because I have been preparing for it since my first year. When I entered the program, the board exam was already in my mind, which is why I do not just study to pass the subject but to understand it very well and be prepared for the boards.
S5		I think the reason why I passed/topped the LET (by God’s grace) was my consistent effort in my studies. Even when I was just in my early years in college, I already prepared myself for the board exam. That’s why I used to borrow Professional Education and General Education books to help me in my preparation.
S6		Having the confidence to pass the licensure exam is a must. Being confident means, firstly, you have prepared/reviewed well; secondly, putting/giving your all/best while taking the exam, and lastly, surrendering the success to God.
S7	Low-frequency user	The reason I passed the Licensure Exam is because I studied very well and also belief of myself that I can do it.
S8		Lack of exposure to board simulation type exam and could not thoroughly review the contents of the syllabus of the exam.
S9		Aside from the things I learned in school, I made sure to gather as many resources as I can. One reason which helped me pass the licensure exam was enrolling in a review center.

Frame 3 shows that S8 did not pass the licensure examination because, as recounted, there was a lack of simulation testing and not reviewing all the competencies specified in the syllabus. From other

accounts, passing the licensure examination was not due to library visits but having enrolled in a review center, and variables like having the right study habits, confidence, and preparation for the examination. According to Jensen (2015), extrinsic and intrinsic motivation are associated with academic success when linked with conscientiousness traits. Likewise, the responses affirm that individual initiative to locate resources within the library (autonomy) and the demonstrated competence reflected in self-confidence have played integral roles in their achievements.

Hence, hypothesis 1, 'There is no relationship between the frequency of using library resources and students' General Weighted Average (GWA) is rejected; hypothesis 2, 'There is no relationship between the frequency of using the library resources and students' achievement as dean's listers, is rejected, and hypothesis 3, 'There is no relationship between the frequency of using library resources and students' passing of board exam, is rejected.

The present researchers acknowledge that the findings here might not apply to other educational establishments with dissimilar library resources, student populations, or curricula. Different educational contexts may not exhibit the same connect as the one found in this study.

CONCLUSION

The study concludes that there is a relationship between students' academic achievement, input factors, and the learning environment. By focusing on inputs related to students' utilization and frequency of library resource use, the research aligns with Astin's model, considering the library as an integral part of the environmental factors influencing academic performance. The library, as a dynamic component of the environment, contributes significantly to the production of academic outcomes, as reflected in students' General Weighted Averages, dean's list status, and success in board examinations. It further provides a lens for understanding these relationships. SDT emphasizes the importance of volitional or self-determined behavior and highlights three fundamental psychological needs—autonomy, competence, and relatedness—as essential for human functioning. In the context of this research, students are inherently motivated by these needs, and the library serves as a vital platform addressing and promoting them. The library becomes a facilitator of the social conditions necessary for optimal student functioning, offering resources, services, and an environment that aligns with the principles of self-determination.

RECOMMENDATIONS

Since this is the COVID-19 times, e-library resources need to be intensified so that students can access the library even without their physical presence. This includes e-library users having frequent information literacy training, as well as librarians receiving training on technology changes in e-libraries. In addition, further study is needed for home/family factors like financial support from family, parental involvement in studies, inspiration, and encouragement, as well as student characteristics such as interest in the program, time spent studying lessons, and use of library/internet resources in research tasks.

Plan for Research Dissemination and Utilization

The findings of this study are significant for universities because they may serve as evidence that the resources placed in the library indeed contribute to the performance of its students when they were still schooling and in the results of the licensure examinations like the Licensure Examination for Teachers, Certified Public Accounting, and Nursing. It may motivate students and other patrons to avail of library resources and services, like the electronic library and presence of physical books, lounges, café, e-gadgets, and many more, to enhance their academic performance. It may also encourage administrators to invest more in the library.

The results of the study will be disseminated through institutional, regional, national and international research conferences.

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