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Editor's Introduction

This seventh issue of the PAARL Research Journal (PRJ) is a compilation of papers submitted for presentation at the 2020 National Summer Conference. Unfortunately, due to the COVID-19 pandemic, the conference did not push through. The committee, together with the 2020 PAARL executive director, however, decided to proceed with the publication of the papers.

The five papers featured in this issue cover pertinent issues affecting the practice of librarianships in this era. The first looks into the stress factors affecting library personnel and how these can be eliminated by designing programs and activities to support them. Two papers focus on the dramatic change in the way library spaces are used and the way the academic community influences the identity of the spaces they use. One discusses the implementation and impact of library-initiated programs that serve as springboard for future outreach program of a University Library. The last paper is based on research designed to develop a mentoring competencies framework for Filipino library and information science (LIS) school administrators. With these contributions to knowledge, PAARL hopes to encourage more librarians to do research and share their output.

1. **Stress between the Shelves: Investigating the "Stress Life" of DLSU Library Personnel by Karen Cecille V. Natividad and Agnes S. Barsaga** identifies the factors contributing to the "stress life" of the library personnel. The results of the study brought awareness to library personnel about their stress levels and the common work-related stressors, allowing them to take the necessary measures or activities to alleviate or eliminate stress before these take a toll on their work and health.

   This article received the Best Research Award during the 48th PAARL General Assembly.

2. **Mapping Space Utilization in an Academic Library by Ana Maria B. Fresnido and Ma. Nancy D. Pieda** investigates how the different spaces/zones are being utilized in an academic library in Region IV-A, including its newly introduced discussion rooms and the "learning commons." It is intended to provide a better understanding of the patrons' needs and preferences in terms of space. Moreover, the study draws out insights on what further improvements can be carried out, such as additional new spaces, space realignment, and space redesign. In general, the clients appreciate and value the library because it has remained functional and able to fulfill their needs, despite its traditional look and facilities.

   This article received the Best Research Award (2nd Place) during the 48th PAARL General Assembly.

3. **Exploring Students' Use of Informal Learning Spaces in an Academic Library by Kate Lora Q. Cruz and Agnes S. Barsaga** seeks to identify the kinds of learning spaces that appeal to different library users and the additional facilities that can be provided in the different spaces of the library. It focuses on the De La Salle University (DLSU) Learning Commons, which was constructed to aid patrons in their various learning activities and events. Facilities with different structures and functions were specifically created for use by students, readers, and the general public.

4. **Impact Assessment of the Library and Information Science Extension Program in a State University by Roaima Lynn B. Antonio and Helen A. Advincula** presents the assessment of the extension program offered by the university library to library aides and teacher-librarians of the division office of a selected partner community. Results show that the participants had gained basic knowledge of the practice of library and information science, but their application of the acquired skills in their own library was lacking.

5. **Development of Mentoring Competencies Framework for Filipino Library and Information Science School Administrators By Fernan R. Dizon, PhD** revealed that (a) preparing future educational administrators as mentors through the study of mentoring literature and mentoring competencies development is important; (b) a mentoring competencies framework for Filipino LIS school administrators that will guide its research and practice is very helpful; (c) mentoring and mentoring competencies awareness for educational administration students, practitioners, and school administrators in different fields must be promoted; (d) other important factors in developing a mentoring competencies framework must be considered; and (e) mentoring competencies development for Filipino LIS school administrators must be formally established and supported.

Last December 2020, PAARL held an online research colloquium featuring the top three papers in this issue. The authors were presented with the Best Research Award for 2020 in the 48th PAARL General Assembly, which was sponsored by PAARL through a grant from CE-Logic, Inc. A cash incentive of PhP5,000 was also given to the author(s) whose research papers are included in this volume.

On behalf of the 2020 PAARL Board of Directors, we would like to acknowledge:

- CE-Logic, Inc. for their continuing support to advance PAARL's research initiatives and projects.
- The members of the PAARL Editorial Team, Kimberly Ann O. Soria, Judeelyn Bundoc, Venus B. Oruga, Juan Martin Guasch for helping in the evaluation and proof-read the submitted papers for this issue.

- Ms. Maria Donna Clemente-Aran for editing the manuscript and Ms. Maria Dianne S. Santos-Coronel for layouting the journal; and
- The members of the 2020 Board of Directors for their dedication and hard work.

The PAARL Board of Director hopes that this publication help the fellow librarians in recognizing the value of research in the practice of our profession.

ENGRACIA S. SANTOS
Editor-in-Chief

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STRESS BETWEEN THE SHELVES: INVESTIGATING THE "STRESS LIFE" OF DLSU LIBRARY PERSONNEL

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ABSTRACT

The study aims to investigate the "stress life" of library personnel and identify the underlying factors. It is hoped that the results will bring awareness to DLSU library personnel about their stress levels and the common work-related stressors, allowing them to take the necessary measures or activities to alleviate or eliminate stress before it takes a toll on their work and health. Library administrators can also use the results in identifying factors or situations that tend to cause stress at work, which may then serve as their basis for assigning or reassigning duties and tasks to librarians. It is important to note, however, that the study investigated only work-related factors of stress.

An online survey was conducted for two weeks to obtain the needed data. Frequency, mean, and regression analysis were employed to analyze the data gathered. Findings from the survey suggest that stress is not isolated in any group of personnel and the stress level among the personnel is manageable. The regression analysis yielded a nonsignificant relationship between stress level and demographic profile. Other ways of investigating stress factors at work are recommended.

Keywords: *stress, academic libraries, stressors, stress management*

INTRODUCTION

Stress is the body's way of responding to any demand or threat (Segal et al., 2018). When in a stressful situation, one's body functions differently from the normal to cope with the pressure, resulting in heavy breathing, excessive sweating, and getting shaky (TeensHealth, 2017). These are called fight-or-flight responses, which allow the body to meet the challenge of the situation or to get away with it. While these responses allow the person to cope with the situation at hand and are considered beneficial, the body is not designed to sustain extended difficulties and stressful events.

Continuous and repeated provocation of these responses has harmful effects on one's body, physically and psychologically (Psychology Today, 2018) This prolonged feeling of stress can easily be associated with work—deadlines, difficult coworkers, and others. Stress, however, is not unique to those working in corporate settings. It can also be felt by those in the academe—administrators and other members of the community, including librarians.

The study aims to investigate the stress level of De La Salle University (DLSU) library personnel and identify ways to aid in effective stress management. Specifically, it seeks to:

a. Identify the profile of DLSU library personnel with the highest/lowest stress level.

b. Identify and examine sources of work-related stress among DLSU library personnel.

c. Determine the effect of stress on performance of tasks; and

a. Identify common stress management activities/practices of DLSU library personnel.

Stress is not unique to those working in the corporate world but is common to any nature of work. The following section presents what the literature describes to be the most common work-related stressors in libraries, as well as their effects and management.

COMMON SOURCES OF STRESS

In the library, like any other workplace, personnel experience stress arising from various factors. Related research points to role ambiguity and role conflict, workload, management and coworkers, patrons, working conditions, and technology as primary sources of stress.

Role ambiguity and role conflict

Role ambiguity happens when there is lack of role clarity and significant information required to perform the work efficiently, while role conflict is a situation when a job's demand and the employee's role do not match (Babatunde, 2013). In libraries, as information technologies continue to influence the information-seeking behavior of users and their application to many library services, traditional libraries have significantly shifted into a digital setup, dynamically changing librarians' roles (Ali Shah, 2015). For newly hired librarians, role ambiguity can result in having a low sense of accomplishment in efforts to complete job requirements and finding their responsibilities hazy and unenjoyable (Larrivee, 2014). While this is more frequently experienced by new hires in general (Shupe et al., 2015), the case of academic librarians is of special interest due to the adoption of new technology in their services (Bramble,

2013). Shupe et al. (2015), in comparing the role ambiguity of librarians with other professions in their study, found that the academic librarians' mean level of role ambiguity was comparable with that of nursing executives, employed graduates from business schools, and Greek teachers.

Workload

Library workers nowadays are constantly experiencing insufficient budget and tons of workload while still expected to render quality customer service (Pantry, 2007; McLain, 2018). This means library personnel have to make both ends meet, fulfilling customer needs with limited resources. Budget cuts also result in work overload (Bunge, 1989), a "situation in which someone has too much work to do" (Cambridge Dictionary, 2018). Due to shrinking budget, libraries tend to increase layoffs, leaving them with massive amount of work and a limited number of people (Wilkins Jordan, 2014).

If stress arises from work overload, the same is true for work underload (Psychology Research and Reference, n.d.). There are two types of underload: quantitative and qualitative. Quantitative underload happens when one has not much to do, while qualitative underload is described as a situation when one has enough work to do but the nature of the work is below one's intellectual capability (Bunge, 1989). There are library jobs that are routinary, unchallenging, and not stimulating. Library clerks, catalogers, and reference librarians who answer the same queries from patrons are prone to experiencing stress from being underworked, which limits their creativity and opportunities to use their skills and apply their learning from attending different training (Wilkins Jordan, 2014).

Patrons

Since the library is a service unit, most of its transactions involve dealing with patrons. Unfortunately, not all patrons are nice. Some can be rude and abusive (Wilkins Jordan, 2014). A number of studies have identified patrons as a source of stress among librarians (Bunge, 1989; Sheesley, 2001; Babatope, 2013; Harwell, 2013; Mouli & Krishnan, 2014; Wilikins Jordan, 2014). Stress can be from their behavior or their needs and demands the librarian cannot fulfill (Bunge, 1989), at times posing a threat to the staff, be it emotionally or physically (Wilkins Jordan, 2014).

Management and coworkers

A study by Lehmann (2014) reveals that interpersonal relationship in the workplace is the primary cause of job stress, and the library environment is not an exemption. Poor communication between staff and management is common (Ilo, 2016). There is also lack of recognition, appreciation, and respect (Bunge, 1986; Ilo, 2016) and not having a say in management or decision making even if it involves one's expertise (Ajala, 2011; Ilo, 2016). In some cases, stress comes not from what is lacking from management but what management is showing or how supervisors are treating

their staff members, such as undermining them or yelling at them in front of the patrons (Wilkins Jordan, 2014). Support from coworkers is important during these times, but for others, coworkers can also be a source of stress, such as those who are irritable and negative, and who are fond of gossip (Bunge, 1989). According to Larrivee (2014), while not everyone in the office cannot get along perfectly, isolation from others can lead to a very stressful disadvantage; without peer support, an employee is missing out on an important learning resource.

Working conditions

According to the International Labour Organization (ILO, n.d.), "Generally speaking, working conditions cover a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands that exist in the workplace" (par. 1). Shahu & Gole (2008) say that these account for one of the two major factors causing stress in almost all sectors, the other one being role overload. In libraries, poor working conditions include inadequate and less attractive office space (Bunge, 1989) and lack of air-conditioning (Iroka, 2011). Some staff members also suffer from issues related to benefits and conditions of service, including salaries and salary increment systems, promotion prospects and professional development, and job recognition (Akakandelwa and Jain 2013). In a study by Babatope (2013) in a university in Nigeria, where promotion is scheduled and not staff-initiated, the promotion schedule was not strictly followed, resulting in staff working for more than what they were being paid for and being stagnant in a certain position for longer years. Harwell (2013) summarizes the issue of remuneration and recognition into being "underpaid and undervalued respective of qualifications and working conditions, lack of adequate recognition, lack of opportunity for advancement, increased competition for few positions" (p. 6).

Technology

Technology is a double-edged sword. It can bring about both good and not-so-good things to an organization or institution. While intended to enhance library programs and services, these types of improvements can also be the source of increasing anxiety and stress among librarians, especially the older ones. Serial librarians cited the uncertainty associated with changes in technology as one of their stressors (Sheesley, 2001). This is affirmed in the study by Riley-Huff & Rholes (2011), where librarians disclosed feeling the stress of keeping up with the technology or even frustrated that they did not have enough experience in using technology during their LIS education. Adding to the stress are the increasing role and expectations from librarians due to the emergence and integration of technology to libraries (Ajala, 2011; Wijetunge, 2012). A more in-depth study of technostress by Ahmad & Amin (2012) found academic librarians to be highly affected by techno-uncertainty, followed by techno-overload and techno-complexity, but not so much by techno-insecurity and techno-invasion.

EFFECTS OF STRESS AT WORK

Stress is not bad all the time. According to experts, "in small doses, stress has many advantages" (ULifeline, 2018, par. 2). Like a burst of energy that tells one what to do, it results in laser-like focus to avoid physically stressful situations and meet daily challenges and get things done more efficiently. It fortifies the immune system and even boosts memory. Despite all this, stress is known to do more harm than good. At work, exposure to prolonged and excessive stress may cause high absenteeism (Bowness, 2017). In the corporate world, according to a study by Half (2017), 60% of workers suffered from work-related stress, resulting in lost workdays amounting to $30 billion in a year. As stress takes a toll on one's health and wellness, employees tend to become sickly and skip work. Some, however, still opt to report to work despite being sick, leading to poor performance, productivity, and focus. As employees are not feeling well, are mentally exhausted from all the things that need to be done, and are easily distracted, they are "prone to make costly, harmful or even fatal mistakes on the job" (Hamlett, 2018, par. 5).

Stress likewise causes high labor turnover. Arshadi and Damiri (2013) reveal that job stress relates positively to turnover intention. According to Green Key Resources (2014), stress created by work overload destroys one's motivation and drives them to look for another job (Somol, 2016).

STRESS MANAGEMENT AT WORK

Prolonged exposure to stress poses a danger to both physical and emotional well-being (American Psychological Association, 2018). With fast-moving priorities at work, it is very likely that workplace stress will also increase, and companies need to implement a good stress management policy or program as a way to maintain a positive working environment (Pullen, n.d.). In the absence of such a policy or program in an institution, employees will have to learn how to manage stress on their own.

According to Dr. Melnick, people should build their self-confidence rather than seek others' approval (Goudreau, 2013). As the saying goes, "You cannot please everyone." Instead of dwelling on what others think, they should focus on the work itself. This will give better results and allow them to take immediate action to address it. Taking deep breaths can restore balance (Goudreau, 2013). It is advisable to laugh at times, as it does not only lighten mental load but also stimulates blood circulation and aids in muscle relaxation, which reduces the physical symptoms of stress (Mayo Clinic, 2016). One must set realistic and manageable goals that can be achieved within a specific time frame (Heathfield, 2018). Interruptions, which may eat up a significant amount of work time, need to be eliminated (Goudreau, 2013). Work–life boundaries must be established, making sure they do not overlap with one another. These reduce potential work–life conflict and the stress that goes with it (American Psychological Association, 2018) by categorizing tasks into what is urgent and important and spending most of one's time on those. Inasmuch as work is important, so is one's health. Eating right

and sleeping well are essential. Sleeping has rejuvenating effects (Goudreau, 2013) and prepares one for another day. Reach Out (2018) recommends talking with someone, like one's supervisor or coworker, to sort through feelings, put things in perspective, and release tension.

METHODOLOGY

This study employs quantitative research design. The target respondents included 28 librarians and 56 library support staff members who have been providing library service for at least six months. They were asked to accomplish an online questionnaire, which the researchers sent through email. The survey instrument consisted of seven sections:

1. Demographics of the respondents
2. Library personnel's perception of their stress level
3. Workplace stress scale created by The Marlin Company and American Institute of Stress (2006)
   - Respondents are presented with nine situations and are asked to rate how often they experience the given situation in their current job using a five point Likert scale (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Very often).
4. Modified work stressor questionnaire developed by the American Institute of Preventive Medicine (2012)
   - This aims to identify sources of work-related stressors, divided into 12 categories: disagreement and indecision, pressure on the job, job description conflict, communication and comfort with supervisor, job-related health concerns, work overload stress, work underload stress, boredom-induced stress, problem of job security, time pressure, job barrier stress, and technology induced stress. Each category was composed of five situations where respondents are asked to rate how often they encounter the situations using a five-point Likert scale (1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Usually, 5 = Constantly).
5. Library personnel's perception of the effect of stress on their work
6. Activities performed by library personnel to manage and relieve stress
7. Respondents' recommendations to library administrators on how to reduce stress at work

Before the online questionnaire was distributed, the respondents were asked to accomplish the consent form one week before the intended data-gathering schedule. No sampling was done to ensure the results of the study represented the whole group and were generalizable. The accomplished written consent forms were collected within five working days after they were distributed. Those who did not complete the form were considered to be opting out from the study. Participation was voluntary. They could opt not to answer the survey or, if they did answer the survey, they could withdraw from the study any time, without worrying about incurring any sanctions. Nonetheless, they were still encouraged to participate, citing the significance of the

study to the library, to them, and potentially other libraries and librarians. As the study intended to elicit the true "stress situation" in the libraries, respondents were assured that their answers would not be used in any form against them. Of the 80 respondents who answered the informed consent form, only 63 completed the survey, which translates to a retrieval rate of 78.75%. Using Statista, the researchers employed frequency, mean, and regression analysis to analyze the data gathered.

RESULTS AND DISCUSSION

Stress level per profile

Among the respondents, those in the 46–50 age group registered the highest stress level, while those in the 20–25 age group registered the lowest (see Table 1). Since they were older, those aged 46–50 age might be having challenges coping with the fast-paced workplace, especially with the University operating on a trimester calendar, or undertaking physical tasks. Charles (2010, as cited in Hertel et al. 2015) posited that the probable pattern for this is the potential decrease in performing physical activities, making them more vulnerable. The quick and constant change in technology, which often takes place to enhance library services, and the lack of familiarity and ease in using it may also play a significant factor in their stressed lives. However, if that is the argument, it does not apply to those in higher age brackets, as respondents who were aged 51 to 55 years and 56 to 60 years noticeably registered low stress level. As they were nearing retirement, work did not seem as stressful to them as it was when they were younger. Understandably, respondents in the lowest age group (20–25 years) were the least stressed, as they included newbies who were not given as many responsibilities and assignments as those in the other age groups.

This finding is the same as that of Hertel et al. (2015), who found that middle-aged workers (36–50 years) experienced the highest level of stress in the workplace. Another study of academic librarians, however, reported that those in the 31–35 age group were the most stressed (Mouli & Krishnan, 2014).

Table 1. Stress level of the Respondents, by Age

Age group	Mean stress level
20–25	17.57
26–30	19.92
31–35	20.50
36–40	21.00
41–45	20.00
46–50	21.11
51 years and above	19.27

Female respondents had higher mean scores than the males and were thus slightly more stressed (see Table 2). This result could be found in Ilo (2016) but is in contrast with the findings of Mouli and Krishnan (2014), Ogunlana and Okunoye (2013), and Somvir and Kaushik (2013). According to the American Psychological Association (2019), women are more likely to be stressed than men. This is not because they have a greater tendency to feel or report being stressed, but because they are the ones taking on supervisory roles that require and expect more outputs, compared to men.

Married respondents were more stressed at work than those who were single. Although this study aimed to focus purely on work-related stressors, it was inevitable to count in other factors of stress in certain occurrences. As Filipinos are known to be family-oriented, it is sometimes unavoidable or difficult for them to separate home matters from work, such as the needs of their spouse and children, and bills to pay. Their minds might be preoccupied with matters other than work, making them more prone to getting tired and stressed out. This finding is in contrast with that of Mouli and Krishnan (2014), who found single academic librarians to be registering higher stress levels than the married ones.

Across the three employment categories, those who were on probationary period experienced the highest level of stress. The job stress theory assumes that temporary employees, referred to in this study as probationary employees, are more stressed due to the more exacerbating nature of their job (De Witte & Näswall, 2003, as cited in Martis, 2013).

Table 2. Stress level of the respondents, by gender, civil status, and employment status

Gender	**Mean stress level**
Male	19.95
Female	20.10
Civil status	
Married	20.17
Single	19.84
Employment status	
Permanent	19.86
Contractual	19.53
Probationary	20.33

Respondents who were assigned to the Director's Office reported the highest level of stress (see Table 3). They were responsible for too many people and projects, taking on too much work and having the tendency to rush to complete work. Satellite libraries, where respondents registered the lowest stress level, appeared to be far from the stressful environment of the main campus. In this type of setup, personnel are more carefree and have "greater control over decisions" (American Psychological Association, 2003, par. 5). Rao (1995) noted that even high-performing employees preferred working at the satellite office and refused promotion if that would send them back to the main office.

Table 3. Stress level of the respondents, by section of the library

Assigned section	**Mean stress level**
Archives and Special Collection	19.95
Director's Office	20.75
Instructional Media Services and Systems Services	20.45
Readers Services	20.16
Satellite Libraries	19.83
Technical Services	20.51

Between librarian and paraprofessionals, the former turned out to be experiencing more stress. As they usually held managerial positions and different committee memberships, they handled numerous tasks and managed expectations along with their regular work. Most paraprofessionals performed clerical and routinary jobs. Interestingly, the findings of Skakon et al. (2011) showed the opposite. Managers, despite experiencing higher demands, conflict, and lower social support from peers, still registered lower levels of behavioral, somatic, emotional, and cognitive stress, compared to their staff. The authors attributed this to preventive psychosocial factors that enabled the managers to have a better perception of their working condition.

Table 4. Stress level of the respondents, by position

Position	**Mean stress level**
Paraprofessionals	19.95
Librarian	20.19

Low salary is one major cause of stress among workers (HeartMath, 2019; Rathore, 2017; Rappler, 2016). Babatunde (2013) states that when one's hard work and commitment are not compensated by appropriate financial entitlements, such as salaries and bonuses, the employee is more likely to sustain stress. Data in Table 5 confirm this,

where respondents receiving a monthly salary of Php 20,001 to Php 40,000 had the highest stress level. They could be feeling under-remunerated, doing more than what they were being paid for. In the salary-stress analysis of Train (2019), however, those receiving a high salary were said to be experiencing higher stress level, as the two variables were directly related: "the more stressful a job you have, the more remuneration you receive" (par. 20).

Table 5. Stress level of the respondents, by salary scale

Salary scale (in Php)	Mean stress level
Below 20,000	18.86
20,001–40,000	20.44
40,001–60,000	20.26
60,001–80,000	20.17
80,001 and above	19.91

The researchers also looked into the length of service of the respondents to see if it had a relationship with their stress level. Table 6 reveals that the most stressed group were those who had been with the institution for 31 years and more. This result differs from those of Dcunha (2017) and Olatunji (2013), indicating that those in their early years of service, e.g., 5–10, were the most stressed group. Olatunji (2013) suggests that those who had been in the service for longer years had been able to manage stress and thus had a lower stress level.

Table 6. Stress Level of the respondents, by length of service

Length of service	Mean stress level
6 months–10 years	19.90
11–20 years	20.00
21–30 years	19.72
31 years and above	20.04

The group mean score of each factor was computed, and regression analysis was employed to identify which variable caused stress at work. Table 7 shows no significant difference among the means of the variables, which implies that the respondents' demographic profile was not a substantial factor in their stress level. The results are inconsistent with the existing literature that identifies some demographic factors as determinants of stress at work.

Table 7. Relationship of demographic profile to stress level

N=63	b*	Stderr of b*	b	Stderr of b*	t(55)	p-value
Gender	0.014005	0.159814	0.019182	0.218896	0.08763	0.930489
Marital status	-0.03888	0.148741	-0.05299	0.202698	-0.26142	0.794746
Employment status	-0.12077	0.137758	-0.14093	0.160763	-0.87666	0.384485
Section of the library	-0.08498	0.138428	-0.03468	0.056485	-0.61389	0.541818
Position or role	-0.38846	0.196202	-0.53425	0.269839	-1.97989	0.052728
Salary scale	-0.26161	0.236371	-0.13029	0.117723	-1.10676	0.273216
Length of service	0.029328	0.172326	0.018005	0.105795	0.17019	0.865488

Sources of stress

The respondents were asked to identify the frequency of occurrence of each stressor or the corresponding situation. The top two sources of stress were time pressure and technology-induced stress, and pressure on the job (see Table 8). Time pressure, in this study, included the constant reminder that time is money, rigid start and end time, monotonous pace at work, having not enough time for meals or breaks, and too fast work pace. Lehto's (1998) study, although more than two decades old, similarly found that the respondents associated their stress level with the increasing pace of their work over the years, lack of time and constricting schedule, and not having enough time for breaks.

Table 8. Frequency of occurrence of work stressors

Stressor	Mean
Time pressure	2.52
Technology-induced stress	2.52
Pressure on the job	2.46
Disagreement and indecision	2.36
Communication and comfort with supervisor	2.29
Boredom-induced stress	2.22
Problem of job security	2.22
Job description conflict	2.21
Work overload	2.16
Work underload	2.06
Job barrier stress	1.99
Job-related health concerns	1.93

Technology-induced stress referred to outdated computer skills, which limited the respondents' ability to answer related queries from patrons, unreliable software and hardware, slow connection, and lack of technical support. According to Barnett et al. (2011), one key factor leading to technostress at work is techno-complexity, where the technology's requirements do not match the skills of the personnel. This creates an impression that the person needs to upskill to be able to work efficiently. Slow connection, however, generated the highest score among the individual stressors. Ericsson (2016) reports that "delays in loading web pages and videos under time pressure caused mobile users' heart rates to rise an average of 38 percent" (par. 3). Although Ericsson's study is on mobile users and streaming videos, the same feeling may apply when there is a delayed response from software due to poor connection, especially when one is under time pressure.

The researchers also accounted for the relationship between stress level and the stressors to identify the impact of the stressors on the personnel's stress level (see Table 9). From the 12 group stressors, 3 were found to have a significant relationship with stress level, having a p-value of <0.05. Disagreement and indecision, for obvious reasons, created friction among coworkers and within the section of the library. Work overload, on the other hand, could be quantitative or qualitative. As mentioned earlier, Bunge (1989) pertains to quantitative overload in describing cases where the personnel are doing more tasks due to staff shortage. Currently, several librarian and paraprofessional positions had been vacated, and the tasks were divided among the remaining personnel or were being handled by just a single person. Several respondents also identified in the latter part of the survey that relieving a staff on duty due to absence was stressful. In the same work by Bunge (1989), work overload could also transpire if the personnel feel the job requires a skill that they feel they do not have. This instance was mentioned by the respondents when they were asked to identify situations they considered stressful. The feeling of being stagnant and lacking in career development and advancement also appeared to have a significant impact on stress level. The t-value of the three variables, being positive figures, suggests that these stressors were directly related to stress level. The more frequent the stressors occurred or were felt by the personnel, the higher their stress level.

In Table 10, it could be noted that the library section had a significant relationship with such stressors as disagreement and indecision, pressure on the job, and work overload stress having a negative t-value. This suggests that as the stressors were felt more frequently, the personnel who belonged to the low-code section, particularly the Archives and Special Collections, tended to be more stressed than those in sections with high code.

Job security was significantly related to employment status, given the positive t-value. Evidently, the possibilities of losing their job, not getting enough remuneration, and other instances of job security increased the stress level of contractual employees, as they were more likely to be affected compared to tenured employees.

Table 9. Relationship of work stressor with stress level

N=63	t(57)	p-value
Time pressure	1.811444	0.075163
Technology-induced stress	0.118568	0.90602
Disagreement and indecision	2.900664	0.005282
Pressure on the job	1.749199	0.085639
Communication and comfort with supervisor	0.080473	0.936143
Boredom-induced stress	-0.38874	0.69889
Problem of job security	0.509415	0.612394
Job description conflict	0.603728	0.54842
Work overload stress	3.951222	0.000213
Work underload stress	1.106394	0.273124
Job barrier stress	2.016696	0.048286
Job-related health concerns	1.120053	0.267389

The remaining two variables with a significantly relationship were salary scale and technology-induced stress, as indicated by the positive t-value. High salary could be equated to age, and much older personnel tended to be more rattled and stressed if faced with technology-related occurrences.

STRESSFUL OCCURRENCES

Respondents were asked to identify situations or instances in their jobs that they considered as very stressful. Their responses were grouped into themes based on the general classification of job stressors found in the literature, as follows: (1) role ambiguity and role conflict, (2) work overload, (3) work underload, (4) patrons, (5) management and coworkers, (6) working conditions, and (7) technology. Of the 63 responses collected, none were categorized under role ambiguity and role conflict and work underload.

Work overload

More than a fourth of the responses fell under work overload (20, or 32.26%). A respondent exactly mentioned "work overload," while others were more specific, citing an instance of multitasking.

> Long line of client[s] (borrowing and/or returning of books) at the counter, answering phone calls, accommodating visiting users at the same time, among others.

> If [there are] many students borrow[ing] books, printing, [e]specially if you are alone in the counter.

Table 10. Relationship of stressors with the demographic profile of the respondents

Stressors	Gender		Marital status		Employment status		Section of the library		Position or role		Salary scale		Length of service	
	t (55)	p-value	t (55)	p-value	t (55)	p-value	t (55)	p-value	t (55)	p-value	t (55)	p-value	t (55)	p-value
Disagreement and indecision	0.82925	0.410549	-0.7045	0.484092	0.06265	0.950276	-2.30582	0.024916	-0.92746	0.357739	0.20882	0.835357	-0.27956	0.780864
Pressure on the job	0.49787	0.620563	-0.90117	0.371426	0.82391	0.413548	-2.11075	0.039355	-1.32404	0.190966	0.14643	0.884118	0.14643	0.884118
Job description conflict	0.391638	0.696839	-0.0139	0.988957	1.5771	0.120508	-0.51529	0.608417	0.461821	0.646031	0.328704	0.743628	0.750121	0.456379
Communication and comfort with supervisor	0.41525	0.679573	-0.26204	0.794266	0.40816	0.68474	-1.24296	0.219154	-0.06498	0.948427	0.56823	0.572192	-0.2816	0.779306
Job-related health concerns	-0.07627	0.939479	0.49569	0.622086	0.2731	0.785802	-1.00054	0.321431	-0.03638	0.97111	0.05099	0.959517	1.74708	0.086205
Work overload stress	1.51353	0.135872	0.0053	0.995789	-0.2747	0.784577	-3.29837	0.001709	0.05899	0.953175	0.77625	0.440928	-1.16372	0.249559
Work underload stress	-0.10476	0.916951	0.308408	0.758937	-0.00676	0.994635	-0.01472	0.988311	1.900627	0.062597	0.865725	0.390402	0.489497	0.626437
Boredom-induced stress	-0.71622	0.476886	-0.64874	0.519209	1.130268	0.263268	1.205689	0.233099	1.998322	0.050635	0.330429	0.742331	1.494087	0.140868
Problem of job security	-1.3349	0.187408	-0.54055	0.591001	2.28977	0.025895	1.03004	0.307502	1.65194	0.104245	-0.0689	0.945318	-0.77233	0.443224
Time pressure	0.88037	0.382488	-1.01623	0.31397	1.50154	0.138935	-1.5054	0.137943	-0.5565	0.580125	-0.7245	0.471831	1.36836	0.176764
Job barrier stress	1.36836	0.176764	-0.36906	0.713504	2.512202	0.014961	0.482054	0.63168	0.700403	0.486628	-0.07034	0.944176	1.187184	0.240257
Technology-induced stress	0.515692	0.608137	-0.85461	0.396477	0.902089	0.370943	0.320759	0.749609	1.553517	0.126036	2.118633	0.038653	-0.06468	0.948666

Time pressure or deadline ranked first among the stressors (see Table 10). The indicative responses were categorized under work overload, such as "deadline," "time pressure," "beating the deadline," "... servicing work [counter duties] and hav[ing] limited time to finish a deadline report," and "insufficient time to complete the task." Most of these responses pertained to quantitative overload or having inadequate time to finish all the given tasks (Bunge, 1989). However, there was a particular response denoting qualitative overload, or the lack of knowledge, skills, and expertise to perform the job effectively (Bunge, 1989): "Doing job that I am not [an] expert [in]."

Numerous projects and events that added to the regular workload also caused stress to the library personnel, as implied by their responses:

Too much happening and having a hard time prioritizing and keeping my focus on more important functions because of urgent matters.

During events (planning, requisition/approval of materials/requests, ingress/egress and manning the venue/marshal)...

Multiple events...

Working on too many and consecutive events/projects on top of your daily task.

Management and coworkers

Nearly a fourth of the respondents (14 or 22.58%) pointed to managers and coworkers as sources of stress. According to Bunge (1989), inadequacies in supervision and management are constantly on the list of top stressors among library staff members. Some of the respondents were straightforward, identifying their "immediate supervisor" and "the boss" as their stressors. Others mentioned poor management, especially: "... inconsistency of supervisors...," "slow responses for approval," "... no coordination, no support and lack of communication..."

Those in managerial positions cited "non-cooperative subordinates" as stressors. Stress, however, did not only manifest in hierarchy, as coworkers were also reported as stressors: "work ethics of some personnel," "coworkers are inefficient," "my co-worker's attitude, feeling smart," "absents [sic]of regular employee."

Patrons

As a service unit, the library and its personnel dealt with different types of clients, not all of whom were polite, patient, and understanding. Some were demanding, unreasonable, and disrespectful, among others. A number of respondents shared their experiences: "dealing with arrogant students," "handling irate patrons," "stressful clients," "some patrons are not considerate," "person with bad attitude," and "disrespectful faculty and students."

In addition to difficult clients, students with special needs, who had been mainstreamed, could be a challenge to library personnel. As they did not have adequate training in handling these types of clients, they did not know what to do in case the student had a tantrum or an attack.

Clients violating rules and guidelines were another source of stress. This could be gleaned from the respondents of library personnel: "students using Discussion Room who violate guidelines," "dealing with DR violators," "when somebody [student, faculty, visitors, or anything] reported you directly to Discipline Office for offending them, then you['re] the one to be blame[d] without knowing the real scenario even [if] it's not your real fault."

Working conditions

Only a few responses pertained to working conditions, and most of these had to do with schedule, especially since the personnel worked on a rotation basis. Other concerns expressed by the respondents included "overtime hours rendered are lessened," "aircon temperature is extremely high," and "going up and down" (as the elevators served the 6th and ground floors only).

Technology

While technology was one of the most common stressors cited by the respondents, the situations they generally considered to be stressful included only four that were technology-related, all of which concerned slow network or internet connection.

There were two responses related to budget for projects and events, that is, either the budget had yet to be released and the event or activity was approaching, or there was no available budget at all. As project head or event organizer, the personnel could not successfully implement the activity without funds.

Effects of stress at work

When asked to identify how stress affected them in their workplace, 32 of the respondents, or 34.92%, cited their tendency to be absent from work and to have poor decision-making. Westman and Etzion (2001), citing Dilts et al. (1985), confirm that absenteeism is the employees' way of withdrawing themselves from an appalling work environment. In case of unplanned absences due to sickness, according to Woo et al. (1999), employees tend to file a medical leave when they find themselves in poor working conditions while self-report of minor illnesses increases when employees experience poor psychosocial conditions. The respondents mentioned more than once that relieving absent personnel was stressful to them. Investigating the leave pattern of the personnel is entirely a dif-ferent study, but at the main library, absenteeism is commonly observed, particularly in the Readers Services section. The survey results somehow support this observation, as 50% of the respondents from Readers Services

disclosed that high absenteeism was an effect of stress on their work. Of the six groups by section, Readers Services was the fourth most stressed group (see Table 3, above).

Poor decision was also identified by the respondents as an effect of the strain on their work. As the human brain is programmed to be more reactionary in times of stress, people tend to limit their options, thus reaching a premature decision (Carucci, 2017).

While conducting this study, several librarians resigned from their post, and one would assume that too much stress was one of the reasons. However, the survey revealed that the thought of resigning from their job because of stress was true for only 14.29% of the respondents. This suggests that there could be other reasons for employee resignation.

Table 11. Effects of stress at work

Effects of stress	Frequency	%
High absenteeism	22	34.92
Poor decision-making	22	34.92
Low job satisfaction	17	26.98
Low morale	17	26.98
Poor motivation	17	26.98
Poor performance and productivity	12	19.05
Poor timekeeping	11	17.46
Unintended argument with colleagues	10	15.87
Thought of resigning	9	14.29

Stress management at work

As indicated in Table 12, the respondents turned to different ways to relieve stress. Prayer was the most common, as cited by 51 respondents, or 80.95%. Bremner et al. (2011) confirm that prayer helps a person in whatever circumstances, soothing one's soul and diverting a person's attention to become more positive in life. This was followed by listening to music, cited by 48 respondents, or 76.19%. This provides some sense of relaxation, calming one's nerves while performing tasks. Bartleby Research (n.d., par. 2), citing Collingwood (2007), says, "Listening to music can have a tremendously relaxing effect on minds and bodies, especially slow, quiet classical music. This type of music can have a beneficial effect on our physiological functions, slowing the pulse and heart rate, lowering blood pressure, and decreasing the levels of stress hormones." Several respondents (41, or 61.08%) opted to travel or take a vacation to relieve their stress. De Bloom et al. (2009) maintain that "vacation has a positive effect on the well-being of an individual." Taking a nap was cited by 38 respondents, or

60.32%. Nap is vital to one's health. Aside from reducing stress, it protects the immune system (Bushak, 2015). Napping also allows a person to recharge and regain energy and vitality. More than half of the respondents (34, or 53.97%) disclosed that they tried talking to someone when they were stressed. It did not necessarily have to be a partner, but could be a friend, a colleague, a neighbor, a church mate, an acquaintance, or even a buddy to whom they could pour their hearts out and be able to release concerns that were bothering them. Even simply being together was already helpful. Better Health Channel (2015) states, "... talking about problems can release pent-up feelings; talking to someone outside of the situation may help you find a solution to the problem; if you think you cannot discuss the problem with someone you know, you can call a confidential telephone counseling service." Other activities to manage stress, as identified by some respondents, were (1) reading, (2) joining the choir, (3) playing the guitar and singing, (4) watching motivational videos to stay focused, (5) drinking coffee, and (6) drawing/sketching.

Table 12. Stress management activities

Means to relieve stress	Frequency	%
Praying	51	80.95
Listening to music	48	76.19
Traveling/taking a vacation	41	65.08
Taking a nap	38	60.32
Talking to someone	34	53.97
Deep breathing	32	50.79
Exercising	31	49.21
Watching a movie	30	47.62
Laughing it off	28	44.44
Getting a massage	51	42.86
Eating	48	41.27
Shopping	41	36.51
Taking a walk	38	33.33
Meditating	34	31.75
Talking yourself through	32	25.40
Avoiding/adapting/altering/accepting the stressor	31	23.81

Table 12. Stress management activities (continuation)

Means to relieve stress	Frequency	%
Cooking	30	20.63
Gardening	28	19.05
Hanging out with pet	27	19.05
Drinking tea	26	17.46
Doing an art project	23	15.87
Writing it down	21	14.29
Joining a religious community	20	12.70
Hugging it out	16	11.11
Doing aromatherapy	15	9.52
Daydreaming	13	9.52
Doing yoga	12	9.52
Looking for articles and materials on stress	12	3.17
Chewing gum	11	1.59
Others		
Reading	2	3.17
Joining the choir	1	1.59
Playing the guitar and singing	1	1.59
Watching motivational videos to stay focused (YouTube)	1	1.59
Drinking coffee	1	1.59
Drawing/sketching	1	1.59

Recommendations for reducing stress at work

Aside from asking the respondents what they did to manage stress at work, the researchers sought their suggestions of ways management could help relieve stress among its personnel. The responses were categorized into (1) management, (2) group and wellness activities, (3) training, (4) staffing, (5) work/work assignment, (6) facilities, (7) projects, and (8) work conditions. Lengthy responses that cut across

more than one category were broken down, and each element was placed under the corresponding category.

Of the 48 responses gathered, 13 (or 27.08%) involved training and wellness activities, such as outing, teambuilding, and work fun activities. Several responses (7, or 14.5%) concerned work or assignments. They were mainly suggesting aligning tasks or assignments to one's expertise or what the personnel loved to do; reviewing the processes and procedures to allow for the effective and efficient distribution of tasks; and identifying stressful circumstances to ascertain strategies to prevent these. In the words of the respondents:

> Know one's passion, talents, or gifts, then use these to better perform the tasks that should be given to them. Help them embrace the attitude of gratitude.

> Fair designation of work duties to all team members.

> Review processes and learn from situations pressing stress to workers.

In between or after a tiring day, one needs a place to relax and recharge. This was evident in the responses pertaining to spaces/facility. The respondents proposed having a comfortable staff lounge where they could destress or a space where they could do physical or other activities:

> Provide a conducive place where the library personnel can mingle, meditate, eat, and power nap. A place where they can relax, read, and meditate.

> There must be a space in the library for the staff to do physical exercises and other activities (similar to a sports gym).

While recognizing projects and events as an integral part of the libraries' strategy to reach a wider range of clients to achieve its mission, the respondents made suggestions of how these could be less stressful:

> Identify key projects per academic year.

> Invest time and resources and ensure that tasks are delegated fairly to the members of the department.

> Assign roles that do not tap the same people many times.

For working conditions, the respondents suggested having "more benefits," "salary increase every term," "consider the schedule of their staff where they can be productive in their work," and "give at least 30 minutes to one-hour research work, inclusive of the daily 8-hour work, to produce knowledge and research output."

CONCLUSION AND RECOMMENDATIONS

The findings of the study suggest that the stress level of DLSU library personnel was still manageable, 21.1 (moderate) being the mean score of the most stressed group and 19.86 (fairly low) being the mean score of the entire group. They might be experiencing severe stress at one time, probably due to events and projects, but such instances could be not often enough to translate into a high stress level.

Stress did not appear to be isolated in any group of personnel as the demographic variables did not have an impact on one's stress level. It was directly related, however, to poor working relationship (disagreement and indecision), task overload, and poor working condition (job barrier). As the results confirmed, the personnel tended to feel stressed when experiencing pressure (time, job, technology) and poor interpersonal relationships (disagreement and indecision, communication, and comfort with supervisor). Further analysis of stressors and demographic variables revealed that different sets of stressors affected different demographic groups. As different groups had varying needs and concerns, the same stressors did not have the same effect on all. Thus, a group of stressors elicited stress in a specific group only.

As the body could not sustain prolonged stress, the personnel tended to take off work to withdraw from the unhealthy environment. It could either be unplanned or planned vacation leave to be away from work and recharge.

Based on the results of the study, it is recommended that the libraries review their Key Results Areas to streamline projects, processes, events, and activities, with the aim of reducing work overload and pressure at work. This will allow greater focus of time and effort on key activities, which can then result in better output. Having regular dialogue or even "coffee sessions" with personnel will also help management learn about their situations and frustrations in their work. Use of space, facilities, and activities also requires careful planning, taking into consideration not just the patrons but the personnel's needs as well. Lastly, further study of stressors among librarians in different types of libraries is suggested, as they may have different sources of stress.

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APPENDIX A
Informed Consent For Dlsu Libraries Personnel

PART I: INFORMATION SHEET

A. Introduction

We are conducting a study on stress and stressors among DLSU library personnel. The results of the study will make DLSU library personnel aware of their stress levels and the common work-related stressors, thus allowing them to take precautionary measures and activities before stress takes a toll on their work. In this regard, may we request your participation by answering an online survey. You may talk to anyone you wish to talk to in helping you decide whether to participate or not. Rest assured that we, the researchers, are willing to explain should you not understand the questionnaire or the study.

B. Purpose of the Research

The study aims to investigate the stress level and stressors of DLSU library personnel and aid in managing stress effectively.

C. Participant Selection

Since the study will specifically focus on work-related stressors of DLSU library personnel, it is but necessary that the DLSU library personnel will be the respondents of this study.

D. Type of Research Procedures

Participants will be asked to respond to an online survey. They will be given two weeks to complete and submit their responses.

E. Voluntary Participation and Freedom to Refuse/Withdraw

Participation is voluntary and they can opt not to answer the survey if they do not like. Those who will respond, on the other hand, can still withdraw from the study any time.

F. Duration

The online survey/questionnaire will be open and accept responses for two weeks. It will no longer accept responses after the two-week allowance. It is clear to the researchers that those who do not submit their responses within the two-week allotted period will be automatically considered opting out from the study.

G. Risks

There are no known or perceived risks in participating in this study.

H. Benefits

There are no immediate benefits from participating in this study. However, participants' responses may be instrumental in the conception of a stress-free workplace, which will benefit them and/or future librarians.

I. Confidentiality

The respondents' identity shall remain confidential, and responses shall be used solely for the purpose of the study. No personal data will be identified or given out to third parties, and profiles, which will be used to describe the respondents, will not be directly attributed to a specific person (e.g., The study reveals that those who are 26–30 years old are experiencing a high level of stress.)

J. Sharing the Results

A scale on how to measure one's stress level will be made available immediately after that part of the questionnaire to enable participants to determine their stress level. A copy of the full paper will also be sent to the participants after it has been completed.

K. Who to Contact

Participants may contact the lead researcher or her partner should they have questions and clarifications regarding the survey instrument or the study itself.

Karen Cecille V. Natividad
Associate Reference Librarian
karen.natividad@dlsu.edu.ph
524-4611 loc. 620

Agnes S. Barsaga
Librarian
agnes.barsaga@dlsu.edu.ph
524-4611 loc. 620

Also, if the participants have clarifications on the ethical aspects of the study, they may contact the REO Director, Dr. Madelene Sta. Maria (REO@dlsu.edu.ph; 524-4611 loc. 513).

PART II: CERTIFICATE OF CONSENT

This form *will be accomplished in duplicate. One for me to keep and one for the researcher to keep on file.*

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print Name of Participant _____
Signature of Participant _____
Date _____
Day/month/year

Print Name of Impartial Witness _____
Signature of Impartial Witness _____
Date _____
Day/month/year

Print Name of Researcher _____
Signature of Researcher _____
Date _____
Day/month/year

APPENDIX B
Stress between the Shelves: A Study of DLSU Library Personnel's "Stress Life"

Dear Colleagues,

We are conducting a study of stress and stressors among DLSU library personnel. The study aims to investigate the stress level and sources and management of stress of DLSU library personnel. The results of the study will make the DLSU personnel aware of their stress level and the common work-related stressors, thus allowing them to take precautionary measures and activities before stress takes a toll on their work. In this regard, may we request your participation by answering an online survey. You may talk to anyone you wish to talk to about the research and take time to reflect whether you want to participate or not. Rest assured that we, the researchers, are willing to explain should you not understand the questionnaire or the study.

The researchers are dedicated to protecting private information collected from the respondents in concert with Data Privacy Act of 2012.

All personal information collected from this online survey will be used by the researchers for correlating purposes only.

Access to your personal information is limited to the researchers only. The collected personal information will be properly disposed of one month after the research is completed.

*Required

DEMOGRAPHICS

1. Age*

Mark only one oval.

- ◯ 20–25
- ◯ 26–30
- ◯ 31–35
- ◯ 36–40
- ◯ 41–45
- ◯ 46–50
- ◯ 51–55
- ◯ 56–60
- ◯ 61 and above

2. Gender*

Mark only one oval.

- ◯ Male
- ◯ Female

3. Marital Status*

Mark only one oval.

- ◯ Single
- ◯ Married
- ◯ Annulled
- ◯ Widow

4. Employment status*

Mark only one oval.

- ◯ Permanent
- ◯ Probationary
- ◯ Contractual

5. Assigned section*

Mark only one oval.

- ◯ Archives
- ◯ Director's Office
- ◯ Instructional Media Services
- ◯ Readers Services
- ◯ Satellite Libraries
- ◯ Special Collections
- ◯ Systems Services
- ◯ Technical Services

6. Position*

_____

7. Salary scale*

Mark only one oval.

- ◯ 20,000 and below
- ◯ 21,000–30,000
- ◯ 31,000–40,000
- ◯ 41,000–50,000
- ◯ 51,000–60,000
- ◯ 61,000–70,000
- ◯ 71,000–80,000
- ◯ 81,000–90,000
- ◯ 91,000–100,000
- ◯ 101,000 and above

8. Length of service*
Mark only one oval.
- ◯ 6 months to 1 year
- ◯ 1–4 years
- ◯ 5–10 years
- ◯ 11–15 years
- ◯ 16–20 years
- ◯ 21–25 years
- ◯ 26–30 years
- ◯ 31–35 years
- ◯ 36–40 years
- ◯ 41 years and above

THE WORKPLACE STRESS SCALE

This stress scale was created by Marlin Company in conjunction with the American Institute of Stress, appearing in a national poll of American workers in 2006. It aims to measure the stress level of an individual.

Thinking about your current job, how often does each of the following statements describe how you feel?
1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Very Often

10. Conditions at work are unpleasant or sometimes even unsafe.*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Very Often

11. I feel that my job is negatively affecting my physical or emotional well-being.*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Very Often

12. I have too much work to do and/or too many unreasonable deadlines.*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Very Often

13. I find it difficult to express my opinions or feelings about my job conditions to my supervisors.*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Very Often

14. I feel that job pressures interfere with my family or personal life.*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Very Often

For the following three questions, kindly use the following scale:

1 = Very Often 2 = Often 3 = Sometimes 4 = Rarely 5 = Never

15. I have adequate control or input over my work duties.*
Mark only one oval.

	1	2	3	4	5	
Very Often	◯	◯	◯	◯	◯	Never

16. I receive appropriate recognition or rewards for good performance.*
Mark only one oval.

	1	2	3	4	5	
Very Often	◯	◯	◯	◯	◯	Never

17. I am able to utilize my skills and talents to the fullest extent at work. *
Mark only one oval.

	1	2	3	4	5	
Very Often	◯	◯	◯	◯	◯	Never

To get your score, add the numbers you answered to all of the eight questions and see how you compare.

Interpreting Workplace Stress Scale™ scores

Total score of 15 or lower (33% of us are in this category): Chilled out and relatively calm. Stress isn't much of an issue.

Total score 16 to 20 (35%): Fairly low. Coping should be a breeze, but you probably have a tough day now and then. Still, count your blessings.

Total score 21–25 (21%): Moderate stress. Some things about your job are likely to be pretty stressful, but probably not much more than most people experience and are able to cope with. Concentrate on seeing what can be done to reduce items with the worst scores.

Total score 26–30 (9%): Severe. You may still be able to cope, but life at work can sometimes be miserable. Several of your scores are probably extreme. You could be in the wrong job, or even in the right job but at the wrong time, and might benefit from counseling.

Total score 31–40 (2%): Stress level is potentially dangerous—the more so, the higher your score. You should seek professional assistance, especially if you feel your health is affected, or you might need to consider a job change.

WORK STRESSOR QUESTIONNAIRE

This questionnaire will help us identify the most/least common sources of work-related stressors. It was adopted from the American Institute of Preventive Medicine.

Directions: Think about how often you encounter the following situations.
Rate yourself with the following scale in each category.

1 = Never 2 = Rarely 3 = Occasionally 4 = Usually 5 = Constantly

DISAGREEMENT AND INDECISION

---

18. Conditions at work are unpleasant or sometimes even unsafe.*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

19. Unsure of coworkers' expectations*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

20. Unfriendly attitude in coworkers*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

21. Job responsibilities go against your better judgment*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

22. Can't satisfy conflicting demands from supervisors*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

23. Trouble refusing extended working hours*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

PRESSURE ON THE JOB

24. Overloaded at work, unable to complete tasks during an average day*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

25. Too much supervision*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

26. Job requirements are taking their toll on your private life*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

27. Job requirements are taking their toll on your private life*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

28. Rushed to complete work or short on time*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

29. Too much red tape*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

JOB DESCRIPTION CONFLICT

30. Uncertainty about your exact job responsibilities*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

31. Poor flow of information to you in order to carry out your job*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

32. Not enough authority for you to do your job properly*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

33. Not enough authority for you to do your job properly*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

34. Discomfort in handling unethical assignments*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

COMMUNICATION AND COMFORT WITH SUPERVISOR

33. Ideas differ from those of your supervisor*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

34. Trouble talking to boss*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

35. Unable to predict supervisor's reactions*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

36. Boss gives little feedback about your work*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

37. Boss is overly critical of your work*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

JOB-RELATED HEALTH CONCERNS

38. Work conditions are unhealthy*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

39. Trouble talking to boss*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

40. Physical dangers exist at workplace*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

41. Heavy physical tasks to complete*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

42. Hostile threats from coworkers*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

43. Sick days are discouraged*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

WORK OVERLOAD STRESS

44. Can't consult with others on projects*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

45. Coworkers are inefficient*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

46. Often taking work home to complete it*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

47. Responsible for too many people/projects*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

48. Shortage of help at work*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

WORK UNDERLOAD STRESS

49. Too little responsibility at work*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

50. Overqualified for your job*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

51. Little chance for growth*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

52. Trying to "look" busy on job*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

53. Feeling unstimulated*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

BOREDOM-INDUCED STRESS

54. Repetitive or highly specialized routine*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

55. Not learning anything new*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

56. Can't see final outcome of your efforts*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

57. **Job is too easy***
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

58. Daydreaming frequently*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

PROBLEM OF JOB SECURITY

59. Fear of being laid off or fired*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

60. Worrying about poor pension*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

61. Concerned about low wages*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

62. Need "pull" to get ahead*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

63. Could be fired without cause*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

TIME PRESSURE

64. Constant reminder that "time is money"*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

65. Starting and ending times are rigid*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

66. Monotonous pace of work*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

67. Not enough break or mealtime*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

68. Work pace is too fast*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

JOB BARRIER STRESS

69. Hope for advancement or raise is limited*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

70. Sex/age discrimination exists at job*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

71. Not suited to job*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

72. Work has no personal meaning*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

73. Work goes unrecognized*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

TECHNOLOGY-INDUCED STRESS

74. Computer skills are outdated*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

75. Unable to answer questions related to ICT*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

a. Unreliable hardware/software.*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

76. Slow network response time*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

77. Lack of technical support*
Mark only one oval.

	1	2	3	4	5	
Never	◯	◯	◯	◯	◯	Constantly

78. Kindly identify situations/instances in your job which you consider to be very stressful.*

_____

_____

_____

_____

_____

_____

EFFECTS OF STRESS IN WORKPLACE

Kindly answer the question below with whole honesty.

79. From the list, kindly identify which of these are effects of stress on YOUR WORK (Please check all that apply.)

- High absenteeism
- Thought of resigning
- Poor timekeeping
- Poor performance and productivity
- Poor decision-making
- Poor motivation
- Low morale
- Low job satisfaction
- Unintended argument with colleagues
- Other: _____

ACTIVITIES TO REDUCE STRESS

80. Choose the activity/ies or stress management techniques in which you engage yourself when you are stressed at work. (Please check all that apply.)

- Meditation
- Listen to music
- Yoga
- Travel/vacation
- Aromatherapy
- Drink tea
- Laugh it off
- Deep breathing
- Exercise
- Join a religious community
- Chew gum
- Get a massage
- Take a nap
- Hug it out
- Hang out with pet
- Do an art project
- Write it out
- Take a walk
- Talk to someone
- Talk yourself through it (talking calmly to yourself)
- Eat
- Watch movie
- Go shopping
- Look for articles and materials on stress to learn more about it
- Pray
- Cook
- Daydream
- Gardening
- Avoid/adapt/alter/accept the stressor/s
- Other: _____

SUGGESTIONS

81. What do you suggest that the library and the administration do/offer to reduce stress at work?

_____

_____

_____

_____

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MAPPING SPACE UTILIZATION IN AN ACADEMIC LIBRARY

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ABSTRACT

Spatial literacy among librarians is crucial in justifying initiatives to transform spaces. A number of different methods, tools, and trends have been used in the field of library and information science (LIS) to monitor patterns of facilities use or library traffic, which include track the traffic (TTT), shadowing the visitor, room geography, bench studies, behavior mapping, seating sweeps, and visual traffic sweeps (VTS). This study investigates how the different spaces/zones are being utilized in an academic library in Region IV-A, including its newly introduced discussion rooms and the "learning commons," to provide a better understanding of the patrons' needs and preferences in terms of space. Moreover, the study draws out insights on what further improvements could be carried out, such as additional new spaces, space realignment, and space redesign. Mixed method (quantitative and qualitative descriptive research design) was employed for this study, particularly seating sweeps and interview. Findings show that patrons, in general, appreciated and valued the library because it remained functional, that is, it was able to fulfill the needs of its clients, despite its traditional look and facilities.

Keywords: *seating sweeps, learning commons, spatial literacy, library spaces*

INTRODUCTION

The concept of learning commons, which was introduced in the 1990s (Sheikh, 2015), has turned libraries into more exciting places as patrons witness significant transformations in terms of facilities, technology, services, programs, and staffing patterns (Forrest & Hinchliffe, 2005).

The physical transformation in academic libraries, in particular, has been largely influenced by learning theories (i.e., constructivist learning theory) and emerging

technologies. In today's learning space designs, three major trends can be noted: (1) there is "intentional support for social and active learning strategies," which, as affirmed by research, encourages learners to interact with one another, thus enhancing and deepening learning; (2) they are human-centered (i.e., providing environments for people); and (3) they take into account the fact that patrons bring with them personal devices that supplement learning such as laptops, tablets, and cellphones (Brown & Long, 2006, p. 9.1).

To facilitate social and active learning, informal learning spaces have been introduced in libraries. Bringing together "architecture and technology" (Brown & Long, 2006, p. 9.3), these embrace wireless technology, flexible workstations, movable furniture (e.g., furniture on wheels), and shared learning spaces, creating an environment that is vibrant and dynamic as well as suitable for social interaction and collaboration.

As the learner becomes the focus of attention (Brown & Long, 2006; Heitsch & Holley, 2011), libraries have begun to adopt human-centered designs (Sinclair, 2007). Food and drinks are made available, and cafés are now considered essential in the learning commons model. Soft and comfortable furnishings and lounge areas are also provided, making it conducive for patrons to network (McMullen, 2008) and exchange ideas.

At the rate that technology is changing, however, universities are finding it difficult and costly to keep upgrading. As more and more students are bringing with them different personal devices, universities are shifting investments to "software implementation and interoperability" (Brown & Long, 2006). Taking advantage of this trend, libraries now have laptop-friendly furniture and laptop stations, with additional electric outlets for students to plug in their device. Others even offer laptop docking stations to accommodate additional peripherals and allow ease of usage. With their personal devices, they are able to access the library's subscribed databases and other online resources.

Adopting these transformations, however, requires a huge amount of investment. For libraries, therefore, spatial literacy is crucial to justify initiatives to transform spaces. The success of such undertaking is most likely to be achieved by looking into user behavior and preferences, since they are the ones who will be affected by any change in the library (Gray et al., 2018). Different methods, tools, and trends have been used in the field of library and information science (LIS) to monitor patterns of facilities use or library traffic. The most common are track the traffic (TTT), shadowing the visitor, room geography, bench studies, behavior mapping, seating sweep, and visual traffic sweeps (VTS). Track the traffic is an instrument used to study user behavior through observation, where the observer follows a definite route and jots down the activities being done by the clients as they pass by. The process is repeated following regular intervals within the day, which usually lasts a week. Shadowing the visitor entails systematic observation, where the observer shadows individual visitors as they enter the library up to the time they leave the library or

once the patron settles down in one place. A brief interview takes place at the end of the shadowing (Høivik, 2014). Room geography applies mapping to investigate how individuals spread themselves out in a given space. Bench studies records the "sequence of behaviors at particular benches" within a place at a certain time period. Behavior mapping involves noting down the behavior of individuals (using codes) on a drawn-to-scale map of the place being observed. Seating sweeps is the unobtrusive observation of individuals, where the observer notes down their characteristics and behaviors within a particular period (Given & Leckie, 2003). Visual traffic sweeps assesses the use of space by combining "traditional observation methods" with "geo-graphic information systems (GIS) visualization techniques" (Given & Archibald, 2015).

Among these methods, seating sweeps has been widely used because it is simple yet extensive. Several libraries abroad have employed this to gather quantitative data on user behavior. For example, two public libraries in Norway serving a population of 25,000 and 60,000, respectively, gathered data on the activities being carried out in the different zones of their libraries using a standardized instrument/checklist. Results exceeded the expectations of the libraries in terms of the actual use of computers and personal devices, the frequency of group activities involving children and students, and patrons' engagement in social activities (Høivik, 2008).

Mandel (2016) utilized the data collected from seating sweeps conducted in an academic library and entered the data into an ArcGIS database (a proprietary GIS software product) to obtain a graphic display of how students were using the library as a place. The major findings were (1) all floors of the library were being used fairly heavily; (2) utilization of tables (for groups) was higher compared to individual carrels; (3) some areas were seldom used while others were not being used at all; and (4) use of computer workstations was low.

Also using seating sweeps, combined with focus group discussion (FGD) and survey, Hillman, et al. (2017) investigated how library spaces were utilized. They learned that the use of the main level of the learning commons as well as the quiet space at the upper level was consistent. However, the multipurpose lower level was underutilized.

In Canada, observational seating sweeps and survey were employed to examine how library spaces were being used by students in five academic libraries and the role these spaces played in the academic community. Similar usage patterns surfaced in all five libraries. Contrary to the popular perception that modern libraries are being used as a social space, the study proved that academic undertakings were still the most common activity (May & Swabey, 2015).

From the seating sweeps conducted in Clark University's Goddard Library in 2004, it appeared that cluster seats were being used heavily compared to other kinds of group seats. The average use of seats was recorded at 8.1% of the capacity and occupancy rate was 0.2% to 29.8%, on the average (Linn, 2013).

In the Philippines, the first and only seating sweeps study was conducted at the De La Salle University (DLSU) Learning Commons in Manila. Findings revealed the need to realign and redesign existing spaces and introduce new facilities (Fresnido, 2016).

The library under investigation in this study recently introduced new facilities such as discussion rooms and a "learning commons" room (which, at the same time, served more like a lounge and a napping area). This, evidently, was an effort to initiate physical transformation at the library. Having been constructed in 1991, not to mention the fact that a historic house in a nearby town served as its model, this library typified a traditional library in terms of building design.

This study looked into how the different spaces/zones were being utilized in the library, including the newly introduced discussion rooms and the learning commons room, to provide a better understanding of the patrons' needs and preferences in terms of space. It drew out insights on what further improvements could be carried out, such as additional new spaces, space realignment, and space redesign. As this is but the second study making use of seating sweeps in Philippine academic libraries, it is intended to help corroborate or contradict previous findings insofar as Philippine academic libraries and library patrons are concerned.

METHODOLOGY

Mixed method (quantitative and qualitative descriptive research design) was employed through the use of seating sweeps and interview. As described earlier, seating sweeps is an unobtrusive method of observing and documenting how people make use of space (Given & Archibald, 2015). It specifically provides a visualization of "occupancy patterns and user behaviours" (Hillman et al., 2017). This method was introduced by Lisa M. Given and Gloria J. Leckie in 2003, and since then has been used by scholars around the world to aid in decision making, particularly in terms of library space design and use (Given & Archibald, 2015).

"Sweeping" was conducted at the selected library, including its educational media services (EMS) and electronic resources services (ERS) rooms. This library was chosen for the study because it recently introduced new spaces such as discussion rooms and the learning commons room and had not been the subject of any other study to date. It would thus be interesting to find out how its patrons were using the new spaces. In addition, the library maintained a very classic look, continuing to provide library facilities that were quite traditional. Hence, it would be worth knowing what further improvements (i.e., new spaces, space realignment, and space redesign) could be instituted that would very well respond to the needs of the users.

Only library patrons were observed. Library personnel were excluded from the study. The researcher recorded the gender of the patrons, the specific spaces they were occupying, and their particular activities at the time of the observation. In instances where there was a sudden shift in activity (e.g., initially reading a book and then

suddenly picking up a pen and taking down notes), the first observed activity was the one recorded.

Sweeping checklists (one per floor/section), patterned after the one used by Linn (2013), were designed to document the observation. These were tried out to see how well they covered all areas/facilities and common activities of patrons while inside the library. The ease of accomplishing the form/checklist was also assessed. Changes were incorporated based on the identified deficiencies/difficulties.

For purposes of consistency, only one of the researchers served as the sweeper. The conduct of the observation was kept as discreetly as possible to avoid affecting the natural flow of activities of the patrons being observed.

Sweeps were conducted on all floors and sections/zones of the library (excluding restrooms and staircases) for one week at varying (random) times of the day.

A total of 1,058 patrons were observed during the one-week seating sweeps. This represented 75.6% of the daily average number of clients accommodated by the library (1,400). Of them, 54.2% (574) were females and 45.8% (484) were males.

Seating sweeps data were collated and summarized, mostly using frequency, for analysis.

Interviews were carried out with a total of 12 respondents from the different colleges (58.3% males and 41.7% females). They included undergraduate students who were either in their initial year (freshmen) or final year (fourth or fifth year) in the university, as they were deemed likely to provide meaningful and interesting responses. Freshmen students (41.7%) were new users and "naïve" and could give honest, candid, and unbiased responses, while those who were graduating (58.3%) could share both good and bad experiences throughout the years of visiting the library. A faculty member who was a regular library user was also a respondent. The frequency of their visits to the library varied from twice a month (the least number of visits) to thrice a day (the highest number of visits), although the majority used the library two to three times a week.

For more flexibility, the researchers employed semi-structured interview. Aside from allowing both researcher and respondent to explore or expound on the topic further, it gave the respondents the chance to share their experiences and freely express their thoughts regarding the library insofar as physical spaces were concerned.

Thematic analysis was also undertaken to facilitate processing of the interview responses using open coding. Themes were recorded and organized in Excel.

RESULTS AND DISCUSSION

Activities of patrons while inside the library

The study showed that the library patrons used mobile devices, such as mobile phones and laptops, extensively, and they commonly congregated on the second floor (see Table 1). This demonstrates the importance of technology to the facilitation of learning (Murphy, 2017) for today's generation of students. With this observed trend in the information-seeking behavior of students, the library needs to consider several aspects of the facility (connectivity/Wi-Fi access, availability of laptop stations/laptop tables, networked printer, sufficiency and accessibility of electric outlets, mobile optimization, and so forth); collection (availability of electronic/digital resources); policies (regulating access to social networking sites); and staff capability (capability to provide technical assistance to clients if they encounter problems with connectivity, access to digital resources, and logging-in to online programs, among other common issues). It may also explore services that make use of mobile devices to connect with patrons (e.g., use of short message service, or SMS, to send library notices, virtual tours, and provision of selected mobile applications). This finding is consistent with the results of the sweeping conducted at the De La Salle University Libraries in Manila (Fresnido, 2016) and provides a glimpse of how Filipino youth study nowadays.

Table 1. Activities of patrons while inside the Information Resource Center (IRC)

Activity	1F	2F	3F	EMS	ERS	Total
Using mobile phone	50	166	2	0	26	244
Using laptop	58	134	2	0	5	199
Using library computer	16	1	2	0	152	171
Talking/chatting	18	96	0	0	0	114
Reading	35	32	10	0	1	78
Working on a collaborative project	55	21	0	0	0	76
Sleeping	6	36	0	0	5	47
Others (drawing, arts and crafts projects)	24	18	0	0	0	42
Writing	8	24	4	0	0	36
Looking for books/library items	4	18	0	0	0	22
Viewing television shows, movies, etc.	0	0	0	10	0	10
Interacting with library staff	0	1	0	2	5	8
Flirting/caressing and other forms of public display of affection (PDA)	2	2	0	0	2	6
Just sitting	2	2	0	0	1	5
Borrowing/returning items	0	0	0	0	0	0
Eating	0	0	0	0	0	0
Viewing exhibits	0	0	0	0	0	0
Total	278	551	20	12	197	1,058

A significant number of patrons used the public computers at the ERS (see Table 1). Since this room was designed to be the space for public computers, this observation only meant that it was very functional and performing as expected. Based on the interviews conducted, however, patrons found the time limit for the use of public computers at the ERS insufficient and inconsistent with class periods. They urged the IRC to consider extending the time, say, from one hour to one-and-a-half hours, or longer, if possible, especially if there were no other users waiting for their turn, and aligning it with class periods.

Talking and chatting also appeared to be a popular activity, specifically on the second floor, where the patrons usually gathered. The respondents attributed the noise to the big number of group reading tables available in the area that were arranged very close to each other. They believed that reducing the number of tables and increasing the space between them would somehow lessen the noise level.

Most utilized area

The second floor turned out to be the most used area, making up 52.1% of the total utilization rate. Among the different types of spaces on this floor, the reading areas (both the group reading tables and the individual carrels) appeared to be the most occupied, accounting for 74.6% of the total utilization rate of this floor.

Respondents during the interviews said they liked staying on the second floor because it was quiet, spacious, and cool (i.e., neither too hot nor too cold). The individual carrels also offered patrons some privacy/personal space, allowing them to focus on their studies (Thomas et al., 2015). As the study carrels and reading tables were near the stacks, patrons had easy access to the library collection. Electric outlets were available for patrons to plug in their laptops and access the Internet or subscribed electronic resources of the library, or charge their cell phones to listen to music. While the reading areas and positioning of electrical outlets on the first floor was quite the same, the second floor was more frequented by patrons, likely because of the accessibility of the collection in this area. This is similar to the findings of the study conducted at the DLSU Libraries in Manila (Fresnido, 2016), where patrons likewise preferred to be seated near the stacks.

The least used of all was the EMS, which constituted 1.1% of the total utilization rate. One reason could be the limited number of workstations (only seven) in this area. Moreover, students nowadays like listening to music and watching movies on their mobile devices and want to be able to move seamlessly from one area to another (Thomas et al., 2015). This seamlessness or freedom to move around was not possible at the EMS because the audiovisual equipment available in the room had to be kept plugged, which means patrons had to stay on their seats until they were done using it.

The room dedicated to resources on American studies and the conference room registered zero utilization rate for the duration of the observation. The American

studies collection was specialized and thus catered to a specific group of clients. The conference room, on the other hand, could be used only upon reservation. Clients found doing the reservation troublesome. The library might have to look into its current reservation process and see how it could be simplified.

Most preferred/liked spaces

Clients varied in their preferred types of spaces for different reasons. Coding the interviewees' responses showed that ambiance/atmosphere and functionality/practicality were the two main factors they considered when looking for a space to stay while inside the library.

Clients also favored an atmosphere that is cool, comfortable, relaxing, quiet, and private. Coolness means the temperature inside the library is not too hot or too cold, but just right. A comfortable and relaxing atmosphere implies the availability of cushioned or upholstered seats, much like sofas. A quiet and private space, on the other hand, is a place where there are not too many people and sources of distraction, allowing them to focus on their studies. At the same time, however, they said that spaces should be functional and practical, since students go there primarily to study. Accessibility and proximity were thus major considerations as well. This means being near the stack area where they could easily get books and other printed materials, and near computers or at least electric outlets where they could plug in their laptops and be able to access electronic materials.

The interviewees saw a physical disconnection between the ERS and the library, citing this as a problem primarily because the ERS was not integrated with the collection, and vice versa. They recommended then that the ERS be physically integrated into the library or that a mini version of the ERS be made available in the library.

Least liked spaces

Since clients valued privacy and silence, they expressed dislike for the "learning commons," which they described as very noisy and crowded and thus not conducive for studying and relaxing/sleeping. While it succeeded in its goal of providing a place for socialization and collaboration, it ironically failed in enabling users to generate ideas useful for academic pursuits. Rather, students gossiped and talked about personal matters, turning it into a place where students just hung out to kill time. The respondents saw the physical makeup of that space as the problem, specifically the way the seats were designed and arranged, which for them appealed most to those who just wanted to sleep. It is not surprising then that they generally perceived it as a napping area. The respondents thus suggested dividing the learning commons into two separate areas—one area to accommodate students in groups and another for individuals who prefer being alone. This way, those in groups could discuss among themselves without disturbing those who would want to study or sleep. It is important to note, however, that the discussion rooms already served that function of providing a separate space for students in groups. But the fact that they were still asking for a space with the same

functionality within the "learning commons" implies that the existing discussion rooms were either not sufficient (although this did not manifest in the observation conducted) or they found it difficult to make a reservation. In addition, the respondents said the discussion rooms were small and unable to accommodate bigger groups or not big enough to accommodate a whole class.

The respondents also did not like the thesis room on the third floor because of its inaccessibility. Moreover, the stairs to that room were too steep, which could pose a challenge to those with fear of heights. Installing escalators or elevators was something the interviewees said they would appreciate because this would make the library accessible to clients with physical disabilities and the elderly, and would even impress visitors. In addition, they found the thesis room too small and thus crowded most of the time (although this did not manifest during the observation). One of the respondents also thought the open-shelf system for the thesis collection, instead of the close-shelf system, should be followed to improve accessibility.

The respondents likewise complained about the carrels on the first and second floors that were arranged alongside each other. Study carrels are ideal for individuals who value privacy and solitude. Putting them together defeats such purpose. Thus, the respondents suggested that the carrels be rearranged to provide enough space in between them to allow for privacy or that individual reading areas be provided away from the group reading tables because, often times, students occupying these tables just talked with each other.

The respondents noted the inefficient and inconsistent management of the depository counter. Depositing bags took time because of the long queue (which did not manifest during the observation) while claiming was very disorderly, as patrons no longer lined up when retrieving their things. The respondents thought that expanding the area or providing lockers could solve the problem. With the security gates already installed, however, they said that the library could actually get rid of the depository counter. This would also mean the availability of an extra space that could be converted into a café where clients could be allowed to consume simple snacks bought from outside. The interviewees remarked that they should feed their stomach while feeding their brain.

Overall perception of the irc/other suggestions for consideration

The respondents generally found the IRC to be very functional, student-friendly, spacious, and open. Some of them liked it just the way it was. However, as no library is without flaws, the patrons suggested adding the following, which they believed would definitely add value to the IRC: (1) a multimedia room equipped with the basic software and hardware that would allow students to explore and do video recording and editing; (2) educational board games, so that they could enjoy while learning; and (3) a receipt printer beside the online public access catalog (OPAC) so that the students could print the call number of the books they would want to borrow; (4) a directory

of the different spaces within the library as well as their locations, which could be placed at the entrance to guide students, especially those still unfamiliar with the setup of the IRC; and (5) more electronic and printed books, as most of the existing books were already outdated.

The patrons suggested improvements for the following: (1) Wi-Fi connection; (2) spacing between seats; (3) modern tables, chairs, and shelves conforming to international standards; (4) a more inspiring and contemporary look of the IRC, including artworks on the walls; and (5) more electric outlets and repair of the broken ones.

Finally, the patrons requested that the IRC review its policy of not allowing patrons to bring in food, as libraries nowadays should be human-centered.

CONCLUSION

Students generally appreciated and valued the IRC because it had remained functional, that is, it had been able to fulfill the needs of its clients, despite its traditional look and facilities and its perceived limitations. While the IRC should take pride in how well it had fulfilled its mission, it should also be concerned about how to address the issues that surfaced in this study.

The similar usage pattern (i.e., prevalent use of mobile computing and the need to integrate the stacks to the reading areas) observed in the two academic libraries in the country affirms that BYOD (bring-your-own-device) is the prevailing trend. Thus, providing laptop-friendly furniture and/or laptop stations with laptop docking stations, coupled with an ample number of electric outlets, would be ideal. Clearly, patrons still prefer and value hybrid libraries. Academic libraries should thus strive for the parallel development of their printed and digital collections.

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EXPLORING STUDENTS' USE OF INFORMAL LEARNING SPACES IN AN ACADEMIC LIBRARY

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ABSTRACT

At this age where library services have seen a dramatic change in the way information is acquired, it would be helpful to know the demographic consistencies and differences in the way traditional library spaces are used and the way the current academic community influences the identity of these spaces. This study seeks to identify the kinds of learning spaces that appeal to different library users and the additional facilities that can be provided in the different spaces of the library. It focuses on the De La Salle University (DLSU) Learning Commons, which was constructed to aid patrons in their various learning activities and events. Facilities with different structures and functions were specifically created for use by students, readers, and the general public.

A survey of the Learning Commons was conducted for a period of fifteen days, at random times each day. It revealed that the students' preferred facilities were the chill area, food and beverages area, general seating area, and reading area. The researchers also analyzed data on the clients' gender and activities, such as writing, reading, talking, eating, playing, sleeping, playing, or just sitting and using devices like computer, tablet, laptop, or cellphone.

Noting the specific library spaces where these activities took place on a day-to-day basis, as well as the time they occurred, the study confirms that the students used the current offerings of these library spaces. A continuous evaluation of such usage opens avenues for considering additional informal learning spaces for the library.

Keywords: *stress, academic libraries, stressors, stress management*

INTRODUCTION

Libraries, as keepers of information sources, should be able to address the needs of their communities. Historically, libraries had been characterized as buildings with massive volumes of books containing stories and knowledge of civilization. A fortress of treasures and antiquities and the key to the future, library buildings had been a place of refuge for the community, be it at wartime or not, serving as a shelter for safety and a cocoon of protection for the knowledge they contained.

As centuries passed and civilization evolved, libraries started to be a target of change. At the turn of the millennium, technology became an undeniable catalyst for the accelerated change in the way libraries were operating. From being an imposing fortress, the library transformed into a historical spot that intrigues instead of intimidates the current generation. An example of this is the De La Salle University (DLSU) Libraries, now called the Learning Commons. It was constructed to aid patrons in their various learning activities and events. Facilities with different structures and functions were specifically created for use by students, readers, and the general public.

This paper discusses (1) how the activities of patrons of the DLSU Learning Commons identify the library spaces; (2) how diverse the students' learning methods and activities are; (3) how the library has actively responded to the requirements of the academic community; and (4) how the library services can be further enhanced. Hopefully, the findings can provide helpful input to future improvement plans of the library as well as other libraries aiming to undergo similar transformation and serve the specific needs of their clientele.

Research objectives and setting

At this age where library services have seen a dramatic change in the way information is acquired, it would be helpful to know the demographic consistencies and differences in the way traditional library spaces are used and the way the current academic community influences the identity of these spaces. This study seeks to identify the kinds of learning spaces that appeal to different library users and the types of facilities that could be added to the various spaces of the DLSU Learning Commons, including all public areas, across the different floors of Henry Sy, Sr. Hall. Noting the specific library spaces where these activities took place on a day-to-day basis, as well as the date and time they occurred, the study confirms the need to reorganize some of the current offerings and provide or supply additional facilities, and opens an avenue for additional usable space for the library.

As an academic facility catering to higher education students, the Learning Commons is intended as both a learning space and a community hub. Spaces are well planned out, and individual reading desks and group reading areas are available for quiet reading and general learning activities. Aside from these, creative and social spaces are provided for collaborative and creative learning. Designed to be both comfortable and

mentally stimulating, this library offers spaces where the students can explore their creativity and hone their intuitiveness beyond the confines of a regular study room. The Learning Commons was selected as the study site because of the dynamic foot traffic and the nature of the spaces available to the students in the libraries.

LITERATURE REVIEW AND METHODOLOGY

Futureproofing has become a basic concept in planning. This allows for flexibility and adaptiveness to possible and foreseen use. Library spaces therefore need to create a spatial identity that responds to the needs of current students while having the ability to accommodate the possible changes that succeeding patrons will bring. This echoes the practicality of Bailin's (2011, p. 343) statement: "Before building renovations to improve spaces, library planners need to understand the information needs of students now and attempt to plan for how they will change in the future." At the DLSU Learning Commons, various types of spaces have been allocated for the comfort, convenience, and use of the academic community it is serving.

In determining how students use the library facilities and understanding the possible underlying factors of such actions and uses, this study can provide helpful considerations in the conscious strategic and practical planning of library spaces. Coupled with the results of similar studies, it can support the ideals of student-centered services when revamping, renovating, or reintroducing current facilities and spaces. Cha and Kim (2015) affirm, "As space use in an academic library is mainly related to students' spatial choices for their activities, understanding their spatial choice patterns regarding the quality of this space is essential for effective design and planning." Spaces do not need to be tailor-made to each individual student's requirements but responsive to the students' evolving needs in terms of education and information.

A survey of the DLSU Learning Commons was conducted for a period of 15 days, from October 15 to 31, 2019, at random times each day (see appendix for the data gathered). This involved observing the activities of library visitors across eight floors of the library with common spaces. The demographic sample was profiled based on the most common activities they conducted and exhibited during the observation period. The researchers categorized student activities in the various spaces into twelve:

1. Reading print materials
2. Using laptops
3. Using mobile devices
4. Writing/doing homework
5. Playing board games, etc.
6. Talking/chatting or laughing/giggling
7. Sleeping/napping
8. Eating/drinking
9. Doing collaborative work with peers
10. Public display of extra affection
11. Sitting/relaxing
12. Others (fixing things, buying food, fixing cameras, etc.)

The researchers also analyzed data on the clients' gender and activities, such as writing, reading, talking, eating, playing, sleeping, playing, or just sitting and using gadgets like computers, tablets, laptops, or cellphones.

Patron-preferred facilities in the DLSU Learning Commons

From the 15-day observation, it was found that the preferred facilities of the students were the Chill, sofa area, cafe, outdoor garden, reading areas, and discussion rooms. These were the spaces that allowed for a more relaxed learning experience for the patrons.

Chill @ the Fifth

Located on the fifth floor, the Chill is designed for relaxation, whether by individual users, partners, or groups. It has board games, comfortable modern seating, and bean bags. The place was named after the millennial use of the word "chill," as aptly defined by Cudoo (2017):

> It was initially (and at times still is) used either in place of the word 'calm' or 'cool/ easy going'. For e.g. If a discussion got too heated, one would tell the other to chill out (calm down) or when describing someone who is relaxed and not easily bothered, you would say "My parents are pretty chill with me going for parties." It is now also synonymous with saying "hang out."

The Chill area is ideal for spending leisure and down time. Students are even allowed to sleep here, as it has a relaxed vibe, com-plete with comfortable cushions, bean bags, and light puzzle games for their use. Tucked away at a corner on the fifth floor, it is a popular meeting and hangout place for students. The students most observed activity in this area is simple conversation (see Figure 1).

The Chill, a popular meeting and hangout place for students (Image from DLSU Libraries website)

Figure 1. Observed student activities at the Chill

Sofa area

There are sofa areas across various floors of the library, and the one located at the lobby is among those with the strongest internet signal. Connectivity, being a heavy requirement of patrons, makes this sofa area a high-traffic space in the library. One would see a significant number of students there, using their personal digital devices. Not surprisingly, results of the observation confirmed that the use of mobile devices and laptops was the most popular activity in this area (see Figure 2). A similar study by Cha and Kim (2015) echoes this finding: "As many students carry their own laptops (over 70% of students in this study) and participate in several activities at the same time, they require enough space for such activities." In the sofa area, almost 31 percent of the activities observed involved the use of mobile devices. The reliance of students on interconnectivity and digital devices was apparent in this space.

Sofa area, where students can comfortable study or work using their electronic devices (Image from DLSU Libraries website)

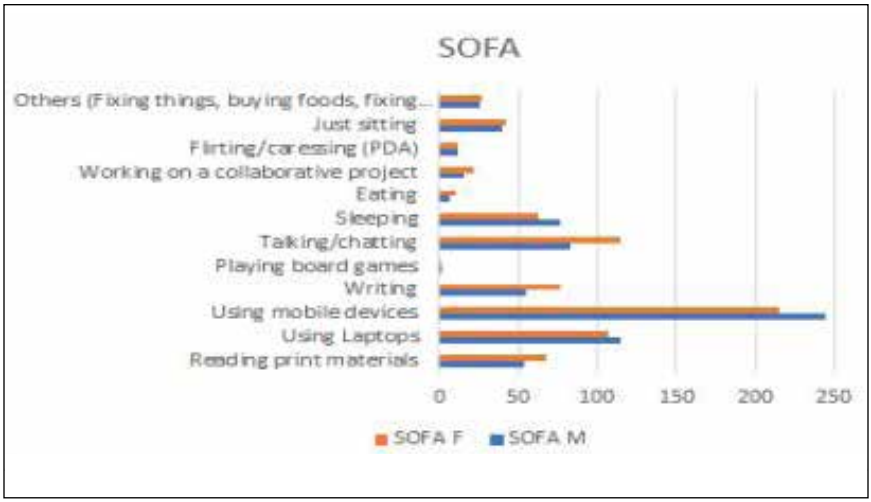


Figure 2. Observed student activities in the sofa area

Cafe

It is a common marketing tool for libraries to offer some form of nourishment to attract groups that want to socialize while taking a break from studying, or individuals who want to enjoy some personal time. Freshly baked bread and coffee, coupled with books, groups of friends, and relaxing ambiance mimic the publicity stunts of commercial establishments, especially specialty coffee shops. Observation data indicated that the Cafe was a common space for socialization. The most prevalent activity was talking or chatting, even if it was a food place (see Figure 3). The main reason for this was the ambiance, which was conducive to relaxed discussion. The availability of nourishment added to the feeling of comfort. In the article published in Model Programme for Libraries, a similar thought on the use of cafés as a learning space inside a library was mentioned,

Some users may have a need to change from a quieter zone at the library, where they have spent some time, in order to recharge their batteries with a snack and new experiences. (The Agency for Culture and Palaces, 2017)

Current students are social creatures, and the colloquial representations of their generation are food, comfort, and social relevance. Therefore, a place that provides food, originally designed to offer a mix of relaxation and interaction, and exuding a sense of togetherness makes it a hotspot for coming together. The anti- café and library living room reveal organizational changes of space that can transform the types of production, consumption and exchange possible in public places (Engel-Johnson, 2017). Such little deviation from the customary cafe or library opens up myriad uses for each, which when combined (that is, the comfort of a cafe ambiance and the thrust of a library) debunk the usage limits of both.

The Cafe, a common space for socialization (Images from DLSU Libraries website)

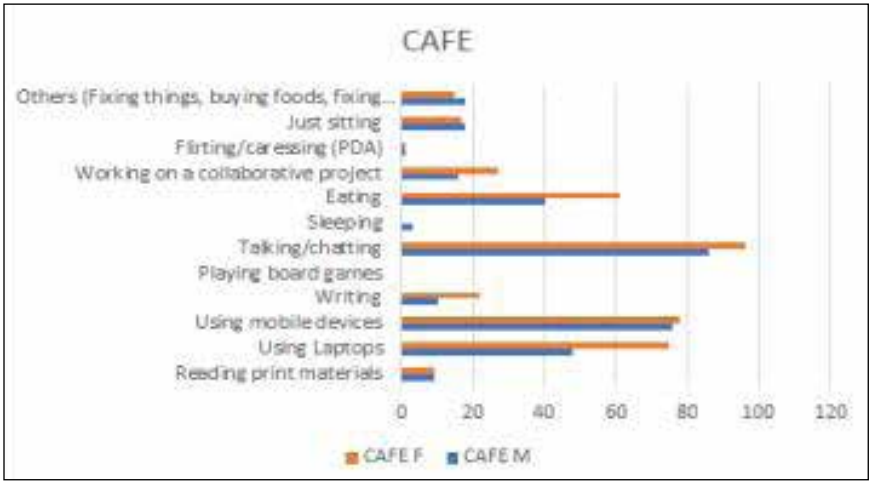


Figure 3. Observed student activities at the Cafe

Outdoor garden, providing a breather space and nature vibe (Image from DLSU Libraries website)

Outdoor garden

Being social creatures, humans tend to explore places beyond the confines of their home. In a recently published article, Kuo (2019) shared from her research that ". . . nature is not just good for kids' health; it improves their ability to learn, too. Even small doses of nature can have profound benefits." The outdoor garden provides the ambient freedom needed by students to refresh, have a breather, and reset, taking time to gather their thoughts and break the monotony of their daily schedule. Based on the observation data, however, this area was not as popular to patrons as the air-conditioned rooms (see Figure 4). The small number of visitors to the outdoor garden does not necessarily mean this area is not productive, though. Those who frequented it appreciated the open area, allowing them to eat, chat, or attend to their personal effects without disturbing other patrons. This was also the go-to place when they needed a breather. The benefit of such outdoor space is confirmed by an article published by the University of Minnesota, titled How Does Nature Impact Our Wellbeing?: "And regardless of age or culture, humans find nature pleasing. In one study cited in the book Healing Gardens, researchers found that more than two-thirds of people choose a natural setting to retreat to when stressed."

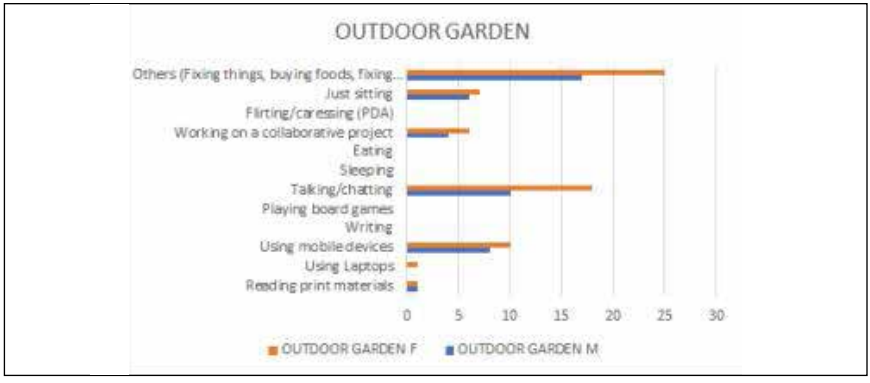


Figure 4. Observed student activities at the outdoor garden

Discussion rooms

The rooms are designed in various configurations to allow for dialogue, group activities, and other forms of discussion by the students. Of all the learning areas observed, this had the highest foot traffic where the activities were educational and purposeful. As the name implies, discussion rooms are for collaborative engagement among the students.

DLSU clearly had taken the interest of students into account when they built spaces such as the discussion rooms. Equipped with common learning items such as a whiteboard, whiteboard marker, eraser, and wipe-erase areas for more collaborative writing spaces. This area simulates a classroom-like environment conducive for doing schoolwork and holding group discussions. The top three activities that were observed in this area were (1) communicating with each other, (2) using mobile devices, and (3) working on a collaborative project (see Figure 5). These commonly involved some form of engagement among members of a group. Mobile devices, perceived to be this generation's oxygen, an extension of themselves, served as a study aid, like for doing research, or a communication aid to reach out to an absent groupmate, a timekeeper, and other productive uses.

Discussion rooms designed for collaborative engagement (Images from DLSU Libraries website)

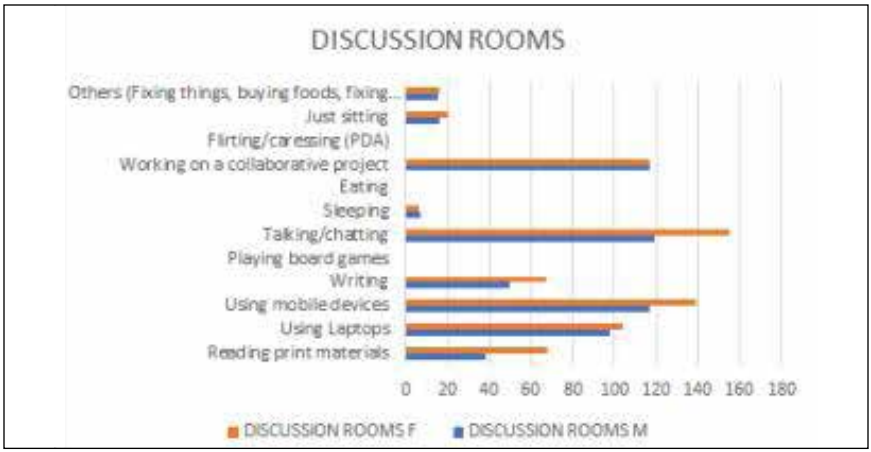


Figure 5. Observed student activities in the discussion rooms

The growing popularity of alternative learning spaces

From the foregoing discussion of the different spaces, one could infer that the current generation relates well to spaces that allow them to express their identity, showcase their creativity, and socialize with their peers. This is reflected in the students' activities that were observed in the common spaces. Aware of this, the library allocated spaces dedicated to these needs. Among them, the discussion rooms had a high occupancy rate because these were often used for collaborative engagements, which means the users were always in groups (see Figure 6). The Sofa area was another popular space, primarily because this offered the most convenience in the use of digital devices.

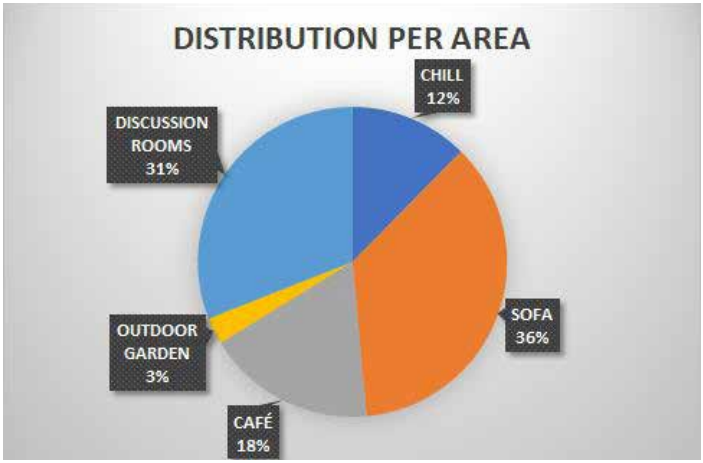
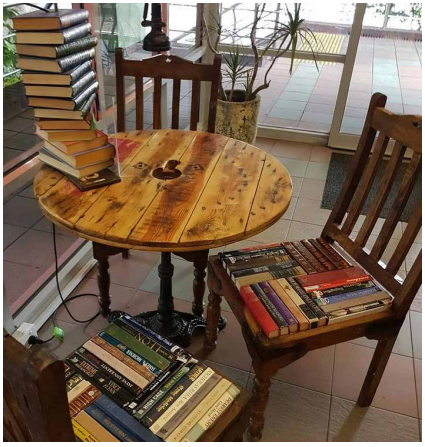


Figure 6. Distribution of activities across the various spaces at the DLSU Learning Commons

It is worthy to note that the learning spaces in the library were all being utilized in various ways and to different degrees, as indicated by the number of students visiting them. Areas that allowed for collaboration, socialization, and individualism had the most number of visitors. The dynamics there were characterized by high action as well. The Cafe and outdoor garden areas, which had a more relaxed and slow-paced vibe, had less visitors. The reason could be that the students went to the library primarily to study or do school-related work and the resources they needed were not found in the Cafe or outdoor garden. These spaces were the go-to places for students who occasionally wanted to take a break from studying and just relax or hang out with friends.

Alternative learning spaces are indeed becoming more popular as libraries evolve with the times and explore ways to keep their resources useful and relevant to their patrons. Below are simple yet interesting images of reading spots. Reminiscent of a regular desk space, this is the Oxfordshire library makerspace. Note the curvature of the desks, reducing the distance for face-to-face discussion. There is also a difference



Cafe in Nowra Library. *A far cry from the desk-and-chair standards of a typical library. The subliminal message creates a learning spot without the confines of a walled library. (Source: State Library of NSW Public Library Services via Flickr)*

Story Pod. *An open space, allowing users a sense of freedom. This learning space in Canada has a minimalist feel in line with the simplicity of the surrounding natural area. (Source: Archdaily)*

As described in Gagantic Forehead (2018), "Story Pod is a little community -supported lending library located in the heart of the Newmarket City in Canada. The concept of the Story Pod is that it 'encourages you to open your heart and mind to life's possibilities similar to the way a book does.'"

Interior of the Oxfordshire County Library makerspace. *Reminiscent of a regular desk space, with the curvature of the desks, reducing the distance for face-to-face discussion. There is also no difference in the number of seats among the tables. One is more cozy while another allows for clique style team collaboration. (Source: Wikimedia Commons)*

Rain garden reading lounge. *The differentspaces in this lounge at NC State University Libraries are suitable for both solitary and group learning activities. The lounge also provides a relaxed, open feel of a garden. (Source: NC State)*

in the number of seats among the tables. One is more cozy, while another allows for clique style team collaboration.

New and modern ways of allocating learning spaces can also benefit the local community. In the article "10 Must-Visit Libraries in Metro Manila," several libraries that hold special collections are also host to community engagement learning activities, such as poetry reading, lectures, exhibits, and intercultural audio-visual activities (De La Cruz, 2017). As the pedagogy of education transforms into a more scientific and inclusive form of science, library learning spaces are likewise recognizing the importance of comfortable and visually appealing learning environments that focus on providing a space for social interaction, creative display of individuality, and a parallel environment for simple human nature.

Discussion of findings: learning the spaces

Observing the students for 15 days gave the researchers a clearer picture of how they made use of the resources and learning spaces available to them at the DLSU Learning Commons. The activities we noted fell into several categories, including other perceived activities they could be doing in the learning environment they were occupying. The library had appropriated several spaces, some of which might not be necessarily "learning" spaces but provided the students with a secured environment they could explore to make the space work for them, whether individually or with other students as a group.

As expectations for library resources and physical facilities have changed, stakeholders have been called upon to transform campus libraries in innovative ways. Most find themselves asking the same crucial question: What are the best practices for planning and designing learning-centered libraries that function well today, and are adaptable to future needs as technology opens new avenues for learning, researching, teaching, and working? (Head, 2016)

In an earlier study of patrons' activities in various library spaces of another De La Salle school, sweeping seats was employed to identify the clients' gender and activities, including particular spaces where these took place as well as the date and time (Fresnido, 2016). The findings revealed the need to realign/redesign some of the existing facilities and establish additional ones.

Similarly, this study of DLSU Learning Commons found that library spaces were being used in ways other than their original or intended purpose. There could be factors related to patrons' behavior or needs that the librarians, planners, and designers did not take into consideration. Thus, a review of the available spaces and how these were used by the library patrons observed in this study would give us a clearer picture of how they would rather use these facilities.

Students' requirements of learning spaces are no longer limited to reading desks and quiet corners and extend to those that cater to their social and creative needs as well. Analyzing the foot traffic and student activities in informal learning spaces of the library, the researchers identified some factors that made them choose to stay there over other areas of the library.

Internet connection

The internet has become a viable commodity, especially as various learning platforms are emerging and the youth are getting more engaged in using and developing their talent and creativity. Students breathe being connected. Findings from the observation undertaken for this study confirm this. The library spaces with the highest foot traffic for both male and female users were those that had internet connection and electric outlets for charging electronic devices. Connectivity has indeed afforded a different form of learning. The diversity of library patrons mirrors the diversity of their interests, with the internet and mobile devices as key tools for delivering on those interests.

The library as an information hub recognizes that patrons prefer internet materials to the library collection and databases. This is the reason it has extended the availability of its services beyond the four walls of the library by allowing the academic community to have regulated access to online sources. Higher education institutions like DLSU fully support their students' wholistic learning and promote the use of technology to facilitate in-depth research and knowledge sharing. Patrons of the Learning Commons are thus able to connect to the Wi-Fi for free and use their electronic devices for studies, social connectivity, and other reasonable purposes.

Private and uninterrupted space

Students are social creatures, but there are times when their social circle is a small group, and the topic of the day requires some form of control over the environment. As the university has planned and endeavored to cater to the various needs of the academic community, it has provided smaller, cozier areas fit for dialogue or discussion in its library facilities. The discussion rooms, located across various floors of the Learning Commons, are conducive for studying and provide a perfect pseudo-boardroom type of space for collaborative work and discussion. These are set up like usual discussion rooms, with chairs and desks for the group, as well as meeting tools like whiteboard, writing pen, and eraser. Ample lightning and temperature make them suitable for group discussions, brainstorming, and sharing of ideas. This helps lessen or even eliminate the need to regroup in one member's residence that may disrupt one's personal space and time. Since common safe spaces are already provided, the increased engagement within the group will improve time management, study and social ethics, and individual participation, since the setting provides a sense of professionalism that motivates the members to contribute and perform.

Uninterrupted spaces help the students focus. With controlled, little, or selective distraction, they allow the students to process their thoughts and concentrate on what they need to accomplish during that visit to the facility. Some patrons prefer a relaxed learning environment to formal learning spaces. The ability of the library to provide what patrons prefer shows how flexible and inclusive its offered spaces are.

Comfortable seating

Comfortable seating options are noticeable inside the Learning Commons, and they are intended to drive the creativity of students. With various seating arrangements, the students have several options where they can sit for a prolonged period of time doing their projects or schoolwork but still be comfortable. In her article, Rendina (2017) cites Basye et al. (2016), who:

> . . . recommend looking at the factors of comfort, ergonomics, flexibility, mobility, and durability when selecting furniture. You also want to consider the different functions of your library space. Do you support full classes? Do they all have to have the same type of chair? Are there small groups coming in to study? Individual students coming to read quietly? Is there an active, vibrant makerspace? All of these play a role in deciding what types of chairs to have.

The seating arrangements offer comfort to students, whether they are reading volumes of materials for hours or perfecting that project using their electronic devices. Aside from preventing posture aches, comfortable seating allows for a relaxed conversation between students. Socialization is a key activity in academic life, and the library ensures it has facilities to support this.

The seats are also made of durable, sustainable, and ergonomically suitable materials. Designed to withstand repeated use and even abuse, they are safe to use for the long term.

Calming and comfortable ambiance

The ambiance of a place can set the mood of people within that setting. In the tourism business mindset, it allows people to unite with their surroundings and can influence their actions. At the Learning Commons, the Chill and outdoor garden areas offer different types of ambiance: one is low key while the other is zen-like. Chill is informally defined as "having a laid-back style or easy demeanor," which students can easily relate to, especially as the term itself, "chill," is popular among the youth. This is where they would go to relax, calm down, and take a moment for themselves and just chill. In millennial speak, this kind of place allows them to disconnect from being students and hang out with friends and colleagues. It is common knowledge that the age group of people attending the university gravitates toward places they find comfortable. Even if there are various activities taking place simultaneously inside the library, patrons still need to be comfortable wherever they are in the facility. This is the reason why the Chill and similarly designed places are attractive to this age group.

Those who would rather spend quiet time, communing with themselves and with nature, go to the garden area. It boasts of a connection to natural elements, with no air-conditioning but natural air circulation. The live plants and natural lighting give one the feeling of being beyond the confines of a physical structure. The Zen-like ambiance can be attributed not only to the natural elements but also to the furniture and their placement in the garden.

Another place with ambience and comfort is the cafe inside the library. Food is almost a staple in any form of social gathering. It does not only fuel one's body but also one's mind. The Learning Commons has spaces where food is allowed, recognizing the importance of sustenance and comfort to the students. Outside influences are brought inside controlled environments, and this sends a pseudo-psychological signal that these places have the things that bring people comfort. Related to the earlier statement that ambiance sets the mood, the vibe of the library spaces speaks to the patrons and determines what their activities will be in connection with the ambiance of the space they are in.

The discussion rooms, while not totally soundproof, still allow students to converse in their normal speaking voice with their teammates without having to worry about disturbing other users or being called out by library personnel. The Chill and garden area are more suitable for muted dialogues or talking in hushed tones.

Open-use space

To maximize use of a facility, versatility is important. Patrons will likely use a facility heavily if it makes spaces available for activities beyond reading, research, and schoolwork. According to Head (2016), "The library of today and tomorrow must provide versatile spaces that support a wide range of users' learning and research activities while accommodating rapid advances in information technology."

The DLSU Learning Commons has spaces that offer informal learning options to students. It does not adhere to the brick-and-mortar definition of libraries, with books and journals, but rather regards a library space as a blank canvass that can accommodate the various creativities, events, and activities of student life. Open-use spaces allow both students and library staff to explore the use possibilities of the space. A multipurpose area with the essential provisions can be a venue for exhibits, talent showcasing, and other sociocultural activities beneficial to the educational, social, and lifestyle aspects of the students.

Creative design

Relative to the concept of open use, a learning space with which students can identify themselves makes that space more productive and relevant. Transforming a space to "the space" is characterized in the way users see the space—the discussion rooms are used for group work or team dialogue and thus are characterized by conversations about schoolwork and academics. In the same way, the Chill is not a place to converse about academics but instead, a place to hang out. Interestingly, visual cues have the potential to create an impact; thus, design is key if the library wants to go beyond the confines of the academic space into a more community-serving learning environment. Let us take, for instance, makerspaces with arts and crafts materials and designs. These visual cues are suggestive of the activities that may be done in the space. The basic designs are merely the start of a more engaging and productive point for a space. The visual stimulation brought about by the space can inspire and intrigue a patron's senses into a more productive activity. One can get inspiration from the visual cues and designs from a space, in the same way that a person can disagree with the space and visualize an entirely different ambiance and use. The main goal of this factor is to ignite the curiosity of the patrons and stimulate their creativity by expressing their innate style.

Some designs, however, may be too much for some students, like those with special needs, but visual cues are designed to affect how a student will use a space. There must be a balance between appropriate design and visual encouragement, in consideration of the differences among the patrons the library serves. Spaces should always be safe, inspirational, and inclusive.

The five factors described above are based on our observation that informal learning spaces should not be perceived as an alter-ego of formal learning spaces. If this happens, the students might not see these as spaces for learning and miss the opportunity of taking full advantage of how these spaces allow for a holistic education experience. The authors suggest that informal learning spaces be perceived more as an alternative to formal learning or be identified as open-learning spaces. Like most terms coined with the word "open," these spaces should not define learning outcomes by popular way of use. The patronage of students to a learning space and the way they use it should not be construed as the only use of a space. As mentioned, one of the factors that attract patrons in open-use spaces is the flexibility they offer. Libraries, as a support provider to the academic community, should have inclusive spaces capable of responding to more than the basic learning needs of the university.

Redefining a learning space may not always equate to renovation or redesign but rather a reintroduction of the offerings of the space. The observation process allowed us to see how patrons perceived these spaces. This glimpse of a part of the library life of students provides insight on how libraries can improve connecting with the academic community. Education is rapidly changing, and educators, including libraries and the librarians, should adapt and be abreast with the trends in new learning spaces. This study is an encouragement to both librarians and student clientele to discover another form of learning through the spaces provided by the libraries.

RECOMMENDATIONS

Informal learning spaces provide a more adaptable learning environment to students. These serve as a hub for completing their schoolwork, a venue for reading and writing, and a place for discussion sessions with groupmates. Students can take advantage of the freedom to use their mobile devices. Libraries thus need to recognize the relevance of informal learning spaces to the perception of inclusivity among the students. As options for socialization gain more and more ground in the daily lives of our students, we need to acknowledge that having flexible learning spaces can make our libraries more accessible to them.

We can influence how the students cope with their daily dealings and equip them to become more inclusive, observant, and creative individuals. Library spaces, no matter how effectively they are used today, may need to be reviewed and revised for the future students. It is important to note that the use of space is dictated by the designer and the user. We need to acknowledge that patron-driven information adds to an effective formulation of how library spaces can be designed or envisioned. The DLSU Learning Commons has provided very engaging, inclusive, and effective informal learning spaces. How these spaces will be used in the future, we cannot really tell. There may be a need to revisit the design, review, or redesign some areas, or even identify and create a new space for the students to use.

The library landscape will always change. Since we advocate lifelong learning beyond degrees and certificates, adapting the same concept will enable us to serve our community better. Informal learning spaces, in any manner used by the students, provide both an introduction to society and an integration with culture. These learning spaces are not merely areas to occupy but a chance to make a mark, a memory in the students' educational journey

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APPENDIX
Data Gathered During The Observation Period Of October 15–31, 2019

Activities	No. of patrons									
	Chill		Sofa		Cafe		Outdoor Garden		Discussion rooms	
	M	F	M	F	M	F	M	F	M	F
Reading print materials	2	4	54	67	9	9	1	1	38	68
Using laptops	20	22	115	107	48	75	-	1	98	104
Using mobile devices	53	52	244	215	76	78	8	10	117	139
Writing	3	2	55	77	10	22	-	-	50	67
Playing board games	23	31	1	2	-	-	-	-	-	-
Talking/chatting	45	81	83	115	86	96	10	18	119	155
Sleeping	21	31	76	62	3	-	-	-	7	6
Eating	4	17	6	10	40	61	-	-	-	-
Working on a collaborative project	10	23	16	22	16	27	4	6	117	117
Flirting/caressing (public display of affection)	4	4	11	11	1	1	-	-	-	-
Just sitting	16	14	39	42	18	17	6	7	16	20
Others (fixing things, buying food, fixing camera, etc.)	8	18	25	27	18	15	17	25	15	16
Total	209	299	725	757	325	401	46	68	577	726

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IMPACT ASSESSMENT OF THE LIBRARY AND INFORMATION SCIENCE EXTENSION PROGRAM IN A STATE UNIVERSITY

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ABSTRACT

Universities are known to provide extension programs to their adopted communities, since community service is one of their mandates. These programs include planning, needs assessment, implementation, and evaluation. However, most evaluations of training conducted have only focused on the facilitators, venue, and the conduct of a particular session. This paper presents the assessment of the extension program offered by the university library to library aides and teacher librarians of the division office of a selected partner community.

The study used a descriptive survey research design to evaluate the effectiveness of the outreach program. The participants were purposively selected to respond to the instrument developed by the researchers. Data were gathered on the extent of the learning of the participants and its application to their own libraries. Results show that the participants had gained basic knowledge of the practice of library and information science, but their application of the acquired skills in their own library was lacking.

The study intends to contribute to the literature on the implementation and impact assessment of library-initiated programs in the local context. The findings are hoped to provide input to possible directions of future extension programs, and serve as a springboard to future outreach programs of the university library. Further studies that will enhance the sustainability of library outreach programs are recommended.

Keywords: *impact assessment, extension program, outreach program, library training, library paraprofessionals*

INTRODUCTION

The Commission on Higher Education (CHED) issued Memorandum Order No. 52, s. 2016, which provides guidelines to higher education institutions (HEIs) for the conduct of extension programs. HEIs are mandated to provide avenues for discovering practical evidence and science-based answers that can address real-world social, economic, and environmental challenges of partner citizens and communities. The types of extension programs conducted by HEIs vary in many aspects, including the mode of delivery, focus of services, and types of partnership. Some involve university students, aside from staff and faculty members, in helping local organizations address community needs. The most common extension activities are livelihood, health promotion, and computer literacy (Llenares & Deocaris, 2018).

State universities, like the institution being studied, are mandated to conduct extension programs that will help alleviate the lives of their adopted communities. Since the university has been designated and is known to be the center of teacher education in the country, its community services focus on the provision of training, seminars, and other related services to teachers and academic staff of the Department of Education (DepEd). The School Division Office (SDO) of the partner community, which is under DepEd, has been the adopted community of the university for the last six years. The different departments of the university have implemented several extension programs for the stakeholders of the partner community SDO, including in-service training for teachers, workshops for academic staff, and sports activities for students. The main purpose of these extension programs is to equip the staff, teachers, and students of the adopted community with various skills that will help them in the different aspects of their professional and personal lives.

The knowledge management department of the university, together with the university library, has conducted training and workshops in the fields of information literacy, technology literacy, and library and information science (LIS). Its outreach programs focus on skills training for librarians, teacher librarians, and library aides of the partner community SDO.

The needs assessment undertaken as part of the outreach program showed that the majority of the library staff members were not licensed librarians and did not have any background in librarianship. Most of them were reassigned administrative staff or licensed teachers who did not currently have teaching loads and were thus given administrative loads such as library services. This kind of situation is not new, especially in public school libraries, due to the shortage of LIS graduates in the country (Totanes, 2006). Because of this, the university library and the knowledge management department, with the help of the community extension office, developed an outreach program to help library aides and teacher librarians of the partner community SDO by providing them with basic knowledge and essential competencies in the field of library and information science.

The purpose of this study is to examine the impact of the LIS outreach program for library aides and teacher librarians of the partner community SDO. The specific objectives were (1) to determine the extent of learning gained from the training; and (2) to identify the extent of application of skills learned from the training.

This study is significant to library practitioners, specifically, to academic librarians who conduct outreach programs, potentially providing a framework for planning, designing, implementing, and evaluating the extension activities of academic libraries. The findings are also beneficial to librarians who are doing research on library programs and activities, and the recommendations can guide further research on library outreach programs. Furthermore, this paper offers insights to library administrators on conducting training for library staff members who do not have an LIS background.

LITERATURE REVIEW

Impact assessment

Assessing the impact of an implemented training usually forms part of the planning process of most programs. However, for community outreach programs, there are few locally published materials that discuss the effects of extension activities on the stakeholders of the implementing institution's adopted community. In most cases, evaluation of outreach is incorporated in a much wider assessment conducted by an institution (Joly et al., 2012), if there is any. A great number of extension programs have been organized and implemented to comply with standards set by outside auditors, such as accreditors and CHED, and the activities end on the last day of training. The practitioners no longer conduct an assessment to determine impact on the participants. Evaluation of extension programs has always been a challenge (Smith & Straughn, 1983). This could be attributed to the difficulty in sustaining extension programs owing to unforeseen factors, such as change of personnel, change of direction, and length of partnership. Evaluation mostly focuses on the facilitators, venue, and content of the activity, which, however, do not gauge if the objectives of the program were met in terms of application and overall outcomes.

According to Crawford et al. (2017), evaluation should be an intrinsic element of an outreach program. It measures the success of a program based on the identified objectives, and confirms whether the time and resources spent were not wasted. This could be done in the middle of the program or after its completion. Evaluating a program midway through its implementation helps address challenges and redirect the course of action toward more favorable outputs. Through this practice, the program is more likely to attain its objectives.

The results of an impact assessment can also lead to new projects that are a continuation of or a follow-up to the activities of the previously completed program. There is a need to create opportunities to tackle all the dimensions of the institute–community relationship continuously and achieve fundamental changes in the governance of sustainable community development (Muthiri et al., 2012). As such, monitoring and evaluation of extension activities can provide useful input to guide extension providers in developing cost-effective programs that have the highest value to and effect on the lives of their subjects.

Aside from determining the impact of the extension program on the participants, this study aims to identify future directions for the next project toward a sustainable extension program. This will enable the university library to address the gaps in the implementation of the previous program. In addition, it will allow strengthening of the skills acquired by the participants and inform the design of advance training.

Library paraprofessionals

In the local context, paraprofessionals in the library refer to library staff members who do not have an LIS degree but work in the library. This term has been an issue, especially for those who do not actually know what it means. Research shows that some library support staff members perceive it to be degrading (Schilperoort et al., 2021). However, the term does not equate to nonprofessionals, as most of them are bachelor degree holders. It is a collective term used to distinguish those who are working in the library but are not licensed librarians.

According to Gremmels (2013), staffing trends in academic libraries include assigning paraprofessionals and student assistants to frontline reference service. She also claims there is an increasing number of non-librarian professionals being hired as library staff. This trend may also be true in public school libraries and in the local context, given the shortage of LIS graduates in the country. Most LIS graduates are hired in academic and school libraries, according to tracer studies. However, official or plantilla positions are lacking in public school libraries, making them unattractive to licensed librarians. To augment the lack of library staff, public schools assign teaching staff and other school staff to library duties. Because of this, there is a gap in the provision of effective and efficient library services in public schools, as the assigned paraprofessionals have limited background in library services.

Ibegbulam and Eze (2016) state that library paraprofessional staff members have a variety of training needs. They further note the limited opportunites for training because of insufficient funding and inadequate training facilities. Most of the related training programs are focused on capability building for librarians, not library para-professionals. Having not enough budget, management sometimes prioritizes training for licensed librarians, who are, in turn, tasked to echo the training to other library staff. First-hand training, however, is also important for paraprofessionals, since they are the library personnel who lack experience and orientation in the field of LIS.

Quality training is essential for library paraprofessionals. Lapidus et al. (2020) posit that paraprofessionals can offer efficient library services when properly trained and oriented in the theories and principles of information science. Knowledge of technical services may be a different matter for paraprofessionals, but training in basic information organization and the principles of information retrieval can be helpful to them and even make them better equipped to provide technical services. Moreover, Zhu (2012) maintains that the difference in roles between library paraprofessionals and librarians is now blurred and not properly defined. This is very much true in the context of local public school libraries, since there is usually only one staff handling the library,

and in most cases, that person is a paraprofessional. The need to train paraprofessionals properly is very much evident.

It is these ongoing discussions on the roles of paraprofessionals that the university library and the knowledge management department of of the university initiated the training program. They recognize the need to equip the library paraprofessionals with the necessary knowledge and skills to provide efficient and reliable service to their patrons. The impact of the training on the participants is thus an important factor that needs attention, not just for measuring the success of the training but also for identifying the future direction of the extension program.

LIS Extension Program

During the planning phase of the extension program, the extension coordinator, together with the university library staff, conducted a training needs assessment of library paraprofessionals in the community SDO. Based on the results of the assessment, the university librarians and LIS faculty designed the program, covering such topics as overview of librarianship as a profession, roles and functions of a librarian, relevant topics of Republic Act (RA) No. 9246, or the Philippine Librarianship Act of 2003, Philippine school library standards, basic library management, reference and information services, and basic organization of information sources.

The librarians of the university library and the faculty members of the knowledge management department implemented the training in academic year 2017–2018, with the participation of undergraduate and graduate LIS students of the university, through its program-based organization. The program was revisited for impact assessment the following academic year. A total of 57 library aides and teacher librarians from different schools of the partner community SDO participated in the program.

After the last session of the training in 2018, the participants were asked to accomplish the evaluation form to give feedback on the sessions, lecturer, venue, and other technicalities of the extension program. Results of the initial evaluation showed an overall interpretation of "excellent," which means the participants appreciated the program and were very satisfied with how it was conducted. The participants were highly encouraged to apply their learning to their own libraries. The impact assessment that is discussed in this study was conducted the following academic year to identify the extent to which the participants were applying the learning from the training.

Framework

This research is anchored in the logic model (Joly et al., 2012), which was developed from the Ottoson and Green framework (2005) and CDC framework (1999). The model presents the major strategies, processes, and possible outcomes of extension activities, including inputs, strategies, outputs, short-term outcomes, intermediate outcomes, and long-term outcomes. Inputs consist of financial resources, facilitators,

stakeholders, and other resources. Strategies and outputs refer to activities that create opportunities for information dissemination and skills formation, such as the conduct of training and interventions. Short-term and intermediate outcomes are indicated by awareness of context, understanding of skills, and increase or decrease in the identified variables. Long-term outcomes are determined by the improved situation of the subjects and the application of learned skills from the program.

The framework for this study was also informed by the integrated outreach program planning process (HOP, 2015), which starts with program planning and needs assessment, then proceeds to implementation and collection and analysis of data, and ends with the use of findings in the planning and development of new programs. From these theories mentioned, the researchers designed the paradigm of the study (see Figure 1).

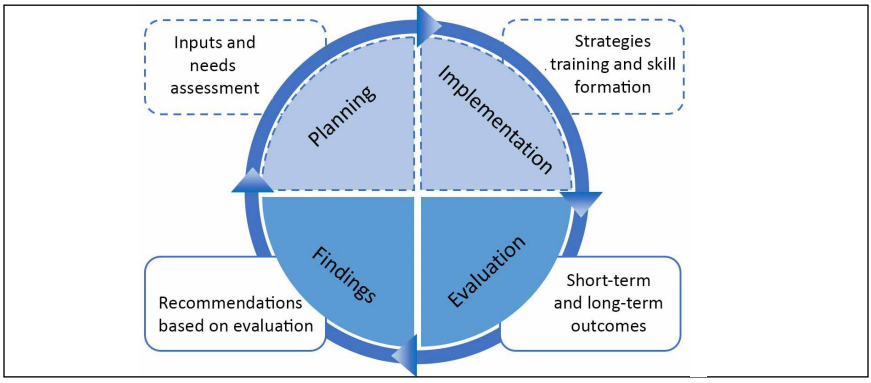

Figure 1. Research paradigm

The lower part of the cycle represents the focus of the study, which is evaluating the impact of the LIS outreach program, with emphasis on the extent of learning the library aides and teacher librarians had gained from the training (short-term outcomes) and the extent of application of the skills learned from the training (long-term outcomes). The findings of the research will form the basis for recommending actions to address the limitations of the previous program. The results may also be used to propose other programs based on the needs of the stakeholders.

The upper part of the cycle represents the activities undertaken before and during the extension activity. These include the planning stage (needs assessment and design of the program) and the implementation stage (initial assessment and strategies for skills formation). Planning and implementation of the outreach program are reported in another work but are included in the research paradigm (represented by dotted lines) to show the whole process of the extension program.

METHODOLOGY

This study utilized a descriptive survey research design to perform an impact assessment of participants in the LIS training program conducted by the university

library and the knowledge management department of the university. This method is considered as the most suitable for this study, which aims to describe the results of the program based on the perspectives of the participants. Purposive sampling technique was used in identifying the respondents to the survey instrument developed by the researchers. This ensured that only those who participated in the outreach program would be selected as respondents of this impact study. Library staff members who were hired or appointed after the conduct of the extension program were excluded from this exercise, as well as paraprofessionals who had been trained but were no longer assigned to library duty, as their participation might invalidate the results of the study. Respondents had to be those who had undergone training and would be able to apply the learning from the training while serving in the library.

The self-made research instrument was composed of three major parts. The first was intended to gather information on the extent of learning of the training participants, which represents the short-term outcomes of the program. The second focused on the application of skills learned from the training by the participants in their own libraries, which represents the long-term outcomes of the program. Skills and topics discussed during the training were itemized, and possible application of these skills in information centers was identified. The tool also collected data on possible future extension activities the participants needed. This last part of the research tool aimed to gather data that would inform strategies to sustain the community–institution partnership program. Experts reviewed the contents of the research tool to ensure its validity and readiness for data gathering. The senior education program specialist of the division office of the partner community also checked and endorsed the tool before it was distributed to the participants.

Ethical considerations were put in place by securing the consent of participants before they were shown the research tool. Their signed consent served to signify their agreement to participate in the study. The purpose of the impact assessment was comprehensively explained to them, and it was clarified that the gathered data would be used only for the purpose of the study and that their identity would not be revealed and be kept confidential. This was done prior to data gathering and was reiterated during the actual conduct of the study. The respondents were also reminded that their participation was purely voluntary and they could withdraw their consent anytime in the course of the research without having to give the reason for their withdrawal.

The extension coordinator of the university library and knowledge management department organized the data-gathering activity, together with coordinators from the partner community SDO, to ensure the safety of the respondents. It was held in one of the community's national high schools under the supervision of the SDO educational program supervisor and SDO librarians. The community program extension office of the university approved the coordination with the SDO.

The gathered data were interpreted using frequency, mean, and ranking.

FINDINGS

This paper discusses the extent of learning the participants had gained form the LIS extension program (short-term outcomes) and the application of that learning to their own

libraries (long-term outcomes). It also explores future outreach activities for the library staff of the partner community.

As shown in Table 1, the topics with the highest mean scores given by the respondents were Librarianship as a Profession and School Library Management, at 3.18, interpreted as to a moderate extent. These were followed by School Library Standards, Customer Services, and Dewey Decimal Classification (DDC). These results imply that the participants were able to grasp the essence of the library profession and accepted their role in the library. Understanding the field of library and information science is essential in fulfilling its core values and executing its purpose. The workshops on the application of DDC also led to the appreciation of the classification system that should be applied in the library to organize its collection.

The topics that received the lowest mean scores were Cutter-Sanborn Table (2.55) and Basic Cataloging (2.45), interpreted as to some extent. Acquiring skills in descriptive cataloging has always been difficult even for professional librarians. Although some members of the training team were at first hesitant to include this topic in the training due to its technicality, the team agreed on its importance as part of library services that should be understood by paraprofessionals. All careers in librarianship include work in cataloging, which has always been recognized as key to library functioning (Marcum, 2006, as cited in Cabonero & Bolendo, 2013). A great deal of time was spent on this topic during the training in technical services. However, findings suggest that the training provided on this topic was not enough and training on the technical aspect of librarianship should be rigid.

Table 1. Extent of Learning from the Training

Topic	Mean	Interpretation
Librarianship as a profession	3.18	To a moderate extent
Foundations and theories	2.64	To a moderate extent
Laws related to the practice of librarianship	2.82	To a moderate extent
School library standards	2.91	To a moderate extent
School library management	3.18	To a moderate extent
Reference questions	2.82	To a moderate extent
Readers advisory	2.64	To a moderate extent
Information literacy skill	2.73	To a moderate extent
Customer service	2.91	To a moderate extent
Reference 2.0	2.73	To a moderate extent
Basic cataloging	2.55	To some extent
Sears List of Subject Heading	2.73	To a moderate extent
Dewey Decimal Classification	2.82	To a moderate extent
Cutter-Sanborn Table	2.45	To some extent
Call number	2.73	To a moderate extent

Table 2. Extent of Application of Learning to Own Libraries

Activity	Mean	Interpretation
Answering reference questions	2.73	Moderately applied
Providing readers advisory	2.55	Slightly applied
Conducting information literacy program	2.91	Moderately applied
Initiating new services/programs based on Reference 2.0	2.36	Slightly applied
Descriptive cataloging	2.27	Slightly applied
Assigning subject heading using Sears List of Subject Heading	2.55	Slightly applied
Assigning classification number using the Dewey Decimal Classification System	2.45	Slightly applied
Building book number/author number using Cutter-Sanborn Table	2.18	Slightly applied

Table 2 shows the extent to which the participants applied their learning from the training to their own libraries. The participants gave the highest mean score to Conducting Information Literacy Program, at 2.91, interpreted as moderately applied. This was followed by Answering Reference Questions, with a mean of 2.73, also interpreted as moderately applied. The results suggest that library aides and teacher librarians were able to provide information literacy to their patrons, which is important in providing library services. The application of reference services, particularly, engaging in reference interview and answering reference questions, was deemed a big step for the participants in the study. This indicates progress in their skills and appreciation of the profession. There appeared to be a gap, however, in the results of the initial assessment and the results of the impact assessment. This could be attributed to the fact that the paraprofessionals could not apply their learning in full capacity due to such factors as workload in public schools. The results, nonetheless, show great improvement from the results of the needs assessment during the planning stage of the extension program.

The rest of the items were interpreted as slightly applied, with the lowest mean scores given to building book number, descriptive cataloging, initiating new services and assigning classification number using DDC. The technical aspect of the training was made a priority item based on the program flow. But the results of the study imply that such training is still not sufficient to encourage non-library-science graduates to practice library technical skills. This result is parallel to the findings from the previous data on extent of learning, which revealed less learning from technical services than the other topics. Consequently, there was also less application of this learning by the paraprofessionals.

The overall rating of the participants for impact of training was 3.45, interpreted as good. This result is not parallel, however, to the overall evaluation of the participants

Table 3. Suggested Future Extension Activities

Topic	Percentage	Rank
Provision of ILS/OPAC Training	100	1
Seminar on Collection Management	90	2
Workshop on Information Technology	45	3
Indexing and Abstracting Workshop	36	4
Training on Library Marketing	27	5
Workshop on the Use of Online Resources	9	6

during the training, which was interpreted as excellent. This apparent gap between the assessment in the last training session and the impact assessment after the training is an important finding of the study and needs to be bridged in succeeding information extension programs. This result also indicates the importance of con-ducting an impact assessment. The attainment of program objectives could vary from the time the participants complete the training to the time they actually apply the learning they have acquired. The latter is the ultimate goal of every extension program, as application of learning is expected to bring some improvement to the concerned people in the community.

The participants likewise suggested possible extensions programs, top of which was training in Integrated Library Systems (ILS) and Online Public Access Cataloging (OPAC). This was followed by seminar/workshop on collection management and information technology. Based on these results, the researchers propose extension activities focusing on the development of ILS for the partner community SDO. Since the university library and the knowledge management department have the ability and capacity to develop simple ILS, they may consider providing it to the community. Other suggested future directions of the program include seminar on collection management, followed by workshops on information technology, indexing, and abstracting. However, the topics indexing and abstracting involve technical skills that may not be suited for the community, since most its library staff are paraprofessionals. It can also be noted that training on online resources is not a priority for paraprofessionals. This is somewhat surprising, since online resources are now a trend, especially for information seekers. Nevertheless, there may be certain factors that contribute to the preferences of paraprofessionals in identifying their training needs. This can be explored further in future research.

DISCUSSION

This study aimed to assess the impact of the outreach program the university library and the knowledge management department of the university had implemented in the partner community SDO. It gathered data on the extent of learning from the outreach program as well as the application of the learning to their respective libraries. The objective was to assess the effectiveness of the training as perceived by the participants,

thereby providing a springboard to further extension services of the department to ensure program sustainability.

The LIS field is not hard to appreciate, especially for those who work at information centers, even if they have not been trained or are not tailored to be information specialists. Basic knowledge of the profession and learning about its significance, function, and reason for existence can lead to an appreciation of its importance and the role it plays in society. This, in turn, can result in better readers' services and eventually to satisfied and more informed library patrons. Although the study did not measure the effectiveness of the actual services provided by the participants, the fact that they had applied learned skills in reference services is a big step to providing better service. However, this is not the same for all aspects of the LIS field.

Technical skills in LIS have always been a difficult subject for librarians. These include descriptive cataloging, subject cataloging, and classification, which are vital skills to ensure the efficient organization of information sources and information retrieval. However, results of the study indicate that mere training or workshop on these topics is not enough to equip staff with the knowledge and skills necessary to perform the relevant library functions. Cataloging skills are enhanced by practice, and the corresponding training must be rigorous and focused. There had been a discussion on whether library paraprofessionals should be given technical tasks in the library. Even proponents of the extension program were having this dilemma during the planning stage of the training, since they were aware of the level of difficulty of cataloging skills. They decided to include it in the program, given the importance of technical skills in maintaining an efficient and effective information retrieval system in the library. A good information retrieval system is what makes libraries distinct from internet search engines. Considering the insufficiency of training for the participants to learn and acquire cataloging skills fully, this study posits that paraprofessionals, unless they have undergone intensive library training in technical skills, must not be allowed to handle technical services in the library. This is possible for libraries with licensed librarians to monitor paraprofessionals, but not for libraries solely managed by paraprofessionals. Otherwise, resources in these libraries will likely be not organized based on standard practices, which will then directly affect information retrieval by library users.

The lack of application of the learning to different library services may be attributed to several factors, including the need for supervision, continuous training, and administrative support. These factors can also be considered in the implementation of future extension programs.

The study likewise found that some of the LIS training participants no longer worked in the library at the time the impact assessment was conducted and had been reassigned to teaching positions or different departments. They had been replaced by new library aides, most of whom had only received simple orientation about the library and had no basic training in library functions. Although this finding is not part of the research objectives, it is important to note here because such practice could

hamper library services and lessen the impact of the training program. It could be regarded as a waste of resources, since some of the training participants who could have applied their learning did not have to do so in their new tasks in a different department.

Another point worth highlighting is that the facilitators of the LIS outreach program conducted an evaluation right after the training. However, this initial evaluation only focused on short-term outcomes, including the satisfaction of participants with the context, time management, facilitators, and venue. The results showed excellent and very satisfactory evaluations, which led the facilitators to believe the training was highly successful as perceived by the participants. Although the results of the full-impact assessment still revealed a positive impression on the conduct of the outreach program, this was only in terms of the short-term outcomes. It was apparent that not all of the long-term objectives were met. Therefore, evaluation of extension programs on the last day of training is not likely to yield accurate results. Moreover, the program must include follow-up and supervision of the application of learned skills. Activities such as monitoring, assisting, and providing feedback may be necessary to ensure the achievement of long-term outcomes. Evaluation of the program midway through implementation can also be conducted to identify challenges, as this will enable the organizer or facilitators to provide immediate solutions and enhance the training experience before the activity ends. This can lead to greater satisfaction among the training participants. This finding of the study is helpful in planning and executing future extension training programs.

Generally, the basic training for paraprofessionals working in libraries is deemed effective, but not for all topics. Basic training in library technical skills, as provided in the extension program, did not prove sufficient to ensure the application of skills learned. Advance, intensive workshop is needed to enable the participants to have a deeper understanding and appreciation of the knowledge and skills being taught so that they could apply it efficiently in their library work.

For future training directions, the study acknowledges that the need of public school libraries of the adopted community for integrated library systems has been overlooked. The reason is that the initial focus of the extension program was to train paraprofessionals. The development of an ILS customized to the needs and context of the libraries in the community SDO should be seriously considered.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the study, the researchers arrived at the following conclusions and recommendations.

Teaching technical skills requires intensive workshops with carefully planned phasing and activities to achieve positive results. As such, the researchers recommend a separate technical skills training activity designed for paraprofessionals. This may lead to better acquisition of skills and the effective performance of technical tasks.

The reassignment of library paraprofessionals who have been trained in basic library services and skills hinders the attainment of training objectives. This is an external factor that the training providers can no longer control. The researcher suggests that future studies consider developing a training module intended for library staff members who are not LIS graduates. This may be a self-paced learning module, with discussions on the fundamentals of librarianship, reference services, and basic technical services.

The researchers further propose that future extension programs consider projects beyond training initiatives. The development of an integrated library system, which is a low-maintenance activity, can be provided to the adopted community. Such projects, if executed and used properly by the adopted community, can have significant impact not only on the library staff but also on the library patrons of the partner community.

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DEVELOPMENT OF MENTORING COMPETENCIES FRAMEWORK FOR FILIPINO LIBRARY AND INFORMATION SCIENCE SCHOOL ADMINISTRATORS

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ABSTRACT

This study was conducted to develop a mentoring competencies framework for Filipino library and information science (LIS) school administrators. Using a qualitative research design, it adopted multiple case study as its research methodology. Sanghi's (2007) competency pyramid and Yin's (2007) multi-case study model served as bases for the study's conceptual framework and research paradigm. Research and interview questions were validated through a panel of expert reviewers employing a validation rubric. Participant interviews were transcribed and validated through member checking. Collected data from five Filipino LIS school administrators in January– July 2017 were analyzed and coded using a modified version of Creswell's (2013) template for coding a case study using the multiple case approach. The findings of this study revealed that (a) preparing future educational administrators as mentors through the study of mentoring literature and mentoring competencies development is important; (b) a mentoring competencies framework for Filipino LIS school administrators that will guide its research and practice is very helpful; (c) mentoring and mentoring competencies awareness for educational administration students, practitioners, and school administrators in different fields must be promoted; (d) other important factors in developing a mentoring competencies framework must be considered; and (e) mentoring competencies development for Filipino LIS school administrators must be formally established and supported. Recommendations are also offered for policymakers and for future research in this area.

Keywords: *educational administration, mentoring, mentoring competencies, library and information science*

INTRODUCTION

Educational administration (EDAD) is the study and practice of leadership and management in educational settings. As a field of study, it formally took form during the early 1900s (English, 2003). Since then, it has branched out to other disciplines seeking to educate future professionals. For this reason, one would find administrators

managing schools, colleges, institutes, and departments specializing in a professional area or discipline (e.g., school of nursing, college of education, department of library and information science). Most administrators managing such units are usually faculty members who have risen from the ranks to become administrators. Similarly, library and information science (LIS) schools in the Philippines are administered by librarians turned faculty members and then, later, school administrators.

Unfortunately, most novice LIS school administrators have difficulties performing their administration tasks due to their lack of experience and knowledge. In fact, Bowen and Tobin (2015) observe that many members of the academe have insufficient knowledge of governance or administration. LIS school administrators also find themselves lacking in the essential competencies expected of school administrators. Competencies are "characteristics that individuals have and use in appropriate, consistent ways to achieve desired performance. These characteristics include knowledge, skills, aspects of self-image, social motives, traits, thought patterns, mindsets, and ways of thinking, feeling, and acting" (Dubois et al., 2004, p. 16).

One of the competencies generally acknowledged as essential in any school administrator is mentoring, which has become increasingly important for organizations (Burgess & Dyer, 2009), including academic institutions of higher learning (Faurer et al., 2014, p. 153; Chen et al., 2016). Cariaga-Lo et al. (as cited in Eisner, 2015) also stress the need for faculty (in this case, faculty-administrators) to receive mentoring in all stages of their academic career. Similarly, LIS school administrators must possess certain competencies to become successful mentors, since these can help modify the mentoring relationship with the mentees (Johnson, 2016) and maximize the benefits of mentoring (Smith & Ingersoll as cited in Wang 2010, p. 219; Carraccio et al., as cited in Abedin et al., 2012). Mentoring competencies in this case pertain to the "habitual and judicious use of care, communication, knowledge, technical skill, emotions, values, and reflection in daily practice for the benefit of the individual mentee and the academic community served" (Johnson, 2016).

This study was undertaken specifically because: (a) mentoring competencies development is beneficial to various stakeholders of LIS schools (Allen et al., 2004; Brockbank & McGill, 2012; Burgess & Dyer, 2009; Gilbreath et al., 2008; Johnson, 2016; Klassen & Clutterback, 2001; Nakamura et al., 2009); (b) there is a dearth of pertinent literature on mentoring and competencies (Bright, 2005; Clutterbuck, 2005; Garvey et al., 2014; Beres, 2010; Hamlin & Sage, as cited in McCarthy, 2014; Merriam, as cited in Davis, 2005; Johnson, 2003); and (c) there exists no grand theory that can describe and explain the mentoring competencies (Bozeman & Fenney, 2007; Burke & McKeen, as cited in Bozeman & Fenney, 2007; Chen, Watson, and Hilton, 2016; Cohen, 2003; Clutterbuck & Lane, as cited in Clutterbuck, 2005; Crisp, 2009 & Jacobi, 1991, as cited in Chen, Watson & Hilton, 2016; Merriam, as cited in Davis, 2005; Sugimoto, 2009).

Just like mentoring competencies theories, mentoring in Philippine LIS schools lacks conceptual/theoretical development. Available concepts and theories are

substantive at best. We can attribute this to the fact that most people in the academe expect positive results from mentoring activities, especially if done by mentors holding doctorate degrees (Johnson, 2003). The findings of this study, therefore, contribute to theorizing in EDAD in general, and to the development of a mentoring competencies framework for Filipino LIS school administrators, since EDAD, as a field of study, must use theories to explain and predict phenomena (Lunenburg & Ornstein, 2012, p. 2).

The researcher conducted this multi-case study of five Filipino LIS school administrators to develop a mentoring competencies framework, since there was no such model or framework available to guide this select type of educational administrators. The study sought to answer the main research question: what specific mentoring competencies should be considered for Filipino LIS school administrators? Moreover, it aimed to:

a. Highlight the importance of preparing educational administrators, specifically Filipino LIS school administrators, for their responsibilities as mentors;
b. Propose the inclusion of mentoring and mentoring competencies in the LIS curriculum and in continuing professional education (CPE) activities;
c. Ascertain the lack of mentoring competencies framework for Filipino LIS school administrators;
d. Promote mentoring and mentoring competencies awareness;
e. Identify other factors that must be considered in developing a mentoring competencies framework;
f. Advance a more formal support for mentoring competencies development;
g. Contribute to mentoring competencies literature and theorizing EDAD and LIS; and
h. Propose recommendations for policymakers and for future research in this area.

REVIEW OF LITERATURE

Mentoring and mentoring competencies. What is mentoring? In contemporary usage, mentoring in the academe is defined as a "personal and reciprocal relationship in which a more experienced faculty member acts as a guide, role model, teacher, and sponsor of a less experienced student or faculty member (Johnson, 2016, p. 23). Many scholars consider mentoring as "one of the prominent fads to sweep the educational scene and a panacea for many problems that beset educators" (Barnett & O'Mahony, as cited in Bush et al., p. 118).

"Mentoring is a widely used method of induction into a variety of professional roles, including educational leadership" (Smith and Arsenault, 2014, p. 461). McCarthy (2014) argues that leaders practically exhibit their mentoring skills to demonstrate the attributes expected of leaders to their mentees. Hence, it is safe to say that mentoring is a function of leadership (Conover, 2009).

As Bowen and Tobin (2015) have observed, however, many members of the academe lack sufficient knowledge of governance or administration. This is very unfortunate, since teachers, as members of the academe, "constitute the largest group of potential leaders ... but little is being done ... to enhance their leadership capabilities" (Weller & Weller, 2000, p. 271). Seyfarth (2002) reinforces this claim in stating that administrators learn and acquire the skills and knowledge needed to perform their duties and responsibilities in informal ways. Villani (2002) points out that administrator-mentors should learn explicitly about their role as mentors, since it is one of the best ways for them to perform their job effectively. This could be done through mentoring by peers or other administrators (Turk, as cited in Scherer, 1999). Lastly, Johnson (2003, p. 131) stresses the importance of mentoring practice, especially in schools, because "excellent mentoring perpetuates the same particularly in academia."

Mentoring competencies studies. Several studies have provided a long list of mentoring competencies and characteristics of effective mentors (Ahern, 2003; Clutterbuck, 2005; Clutterbuck & Lane, 2005; Daresh, 2003; Dessler, 2012; DeBolt, as cited in Villani, 2002; Fleming et al., 2013; Hill, as cited in Harvard Business School Press, 2004; Hishinuma et al., 2016; Johnson, 2003, 2016). However, these identified competencies, skills, and behaviors, despite having high face validity, have not been subjected to rigorous validation (Clutterbuck & Lane, as cited in Clutterbuck, 2005, p. 5–6). Additionally, these proto-competencies belong to "the specific context of developmental mentoring and to structured mentoring programmes" (Clutterbuck, 2005, p. 8). These competencies are also highly relationship- and situation-based, as they were identified as essential to the mentoring relationship. It is imperative to state that mentoring relationship is quite different from mentoring competencies, since these are intrinsic to the mentor.

In the field of LIS in the Philippines, studies of competencies among Filipino librarians have been undertaken, such as Fernandez and Buenrostro (2015), Merced (2012), and Villareal (2011). There is also Resolution No. 3, series of 2015, issued by the Professional Regulatory Board for Librarians (BFL), which prescribes the national competency-based standards for Filipino librarians. These studies and standards, however, do not identify nor include mentoring competencies. Moreover, a review of international literature and various web sites reveals that even the American Library Association (ALA) and other international library/librarians' associations have yet to come up with mentoring competencies standards specifically for LIS school administrators.

These studies therefore have failed to offer universally recognized theories on mentoring and mentoring competencies. Chen et al. (2016, p. 22, citing Crisp [2009] and Jacobi [1991]) affirm that "there are no universally recognized theoretical frameworks for mentoring." Hence, more rigorous studies are needed to develop the findings of these studies into universally acceptable theories on mentoring competencies. Sugimoto (2009, p. 31) resonates with this claim when he states that "there is still little research that has distilled these numerous behaviors and mentor characteristics into an operationable

framework." This can be, in fact, attributed to the very definition, concept, and nature of competencies in general, and mentoring competencies, in particular (Ammons-Stephens et al., 2009; Clutterbuck, 2005; Dole et al., as cited in Ammons-Stephens et al., 2009; Koocher & Keith-Spiegel, as cited in Johnson, 2003).

Methodology, Participants, and Data Analyses Framework

Prior to the actual conduct of the study, the researcher consulted various online research databases, as well as online catalogs of major libraries in the Philippines, to scope the breadth and depth of mentoring competencies studies. After this, the study's conceptual framework and research design were developed. This study utilized multi-case study research design, following the advice of Yin (2014), since this offers better analytic benefits than single-case design. Stake (1995) also points out how case studies, as a methodology of research, can help us understand people and programs in the field of education, just like the issue of mentoring competencies for Filipino LIS school administrators.

The study used Sanghi's (2007) competency pyramid model in formulating the research and interview questions and in categorizing coded data, more specifically the mentoring competencies the participants had identified. The research questions and interview questions were subjected to review by a three-member panel of experts, using a Validation Rubric for Expert Panel (VREP). The participants in this study were purposively selected, and they consisted of five Filipino LIS school administrators, who were members of the Philippine Association of Teachers of Library and Information Science (PATLS) and/or Council of Deans and Heads of Library and Information Science Schools (CODHLIS) (see Table 1). They were also current heads of the LIS program in their respective institutions, all of which were recognized by the Commission on Higher Education (CHED). Studying each bounded case of LIS school administrators, as suggested by Yin (2014), proved helpful in developing a mentoring competencies framework for this specific group of educational administrators.

Table 1. Profile of the Participants

	A1	A2	A3	A4	A5
Current position/ official designation	Dean	LIS coordinator	Program chair; chief librarian	Department head	Program head; chief librarian
Faculty/staff supervised	10 full-time faculty; 20 part-time faculty; 6 staff	3 part-time faculty	5 full-time faculty; 1 part-time faculty	4 full-time faculty; 5 part-time faculty; 4 staff	10 faculty members

Data were collected primarily through interviews using an interview protocol, since documents pertaining to mentoring, mentoring competencies, and mentoring competencies development were not available at the participants' institutions from the period January to June 2017. Follow-up questions were resolved through phone calls, emails, and instant messaging. Gathered data were transcribed and validated using member checking.

Individual case analyses were conducted, followed by cross-case analysis to triangulate the results from the individual case analyses, as recommended by Creswell (2013) and Wildly (as cited in O'Donoghue & Punch, 2003) (see Figure 1). The interview data were coded several times to identify common themes that would help in understanding mentoring competencies of Filipino LIS school administrators. Analyses were done using a consistency matrix of the study's research and interview questions, the descriptive codes, pattern codes, as well as the frequency of participants' mention of the pattern codes, findings, interpretations, conclusions, and recommendations, as suggested by Miles & Huberman (1994), Henwood & Pidgeon (as cited in Saldana, 2013), and Bloomberg & Volpe (2012), especially for cross-case analysis.

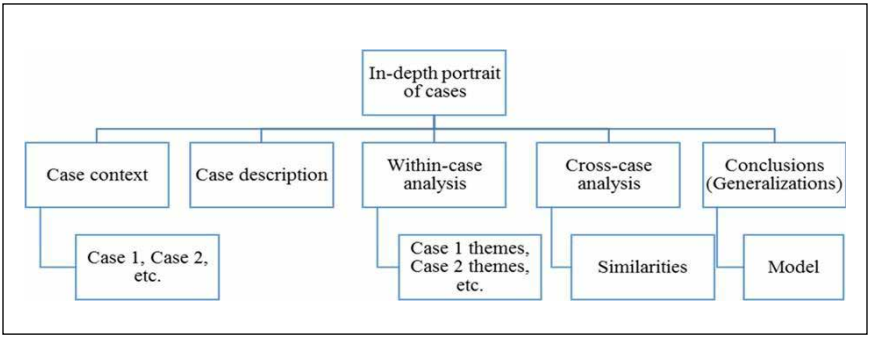

Figure 1. Observed student activities in the discussion rooms

PRINCIPAL FINDINGS

The data gathered from the five participants were analyzed and coded several times to yield codes for the cross-case analysis. The findings are as follows:

Finding 1: Most of the participants (4 of 5 = 80%) had very limited knowledge of mentoring research, literature, and theories.

Finding 2: All the participants recognized the need for a mentoring framework as a guide to mentoring.

Finding 3: All the participants had taken on mentees (students, faculty, staff) informally to improve their performance. This indicates the lack of documents on mentoring and mentoring competencies in their respective universities.

Finding 4: All the participants acknowledged that they had no knowledge of mentoring competencies research, literature, and theories, since their mentoring practices were based solely on their experiences as mentor and/or mentee.

Finding 5: All the participants recognized the need for a mentoring competencies framework as a guide to develop their mentoring competencies.

Finding 6: The participants exhibited the following inherent and developed mentoring competencies: (a) behaviors: patience, generosity, courage, and empathy; (b) knowledge: LIS, educational concepts, and school policies, processes, and procedures; (c) skills: communication, interpersonal, leadership, pedagogical, and assessment; (d) aptitude: passion; and (f) other personal characteristics, which included being straightforward, firm, flexible, open-minded, attentive, objective, experienced, humble, prompt, and collegial.

Finding 7: All the participants believed mentoring would impact the stakeholders of LIS schools (students, faculty and staff, and the organization itself). By improving the quality of education in their institution, better outputs are ensured (i.e., better graduates and faculty, accreditations), resulting in the mentee's independence and the mentor's and mentee's competencies development.

Finding 8: Mentoring competencies that need to be considered for Filipino LIS school administrators are as follows: (a) behaviors: caring, responsible, firm, insightful, persevering, patient, and tolerant; (b) knowledge: LIS, school programs, policies, processes, and procedures, as well as other disciplines (multidisciplinary); (c) skills: communication, interpersonal, information technology (IT), leadership, librarianship, and technical writing; (d) aptitude: motivated; and (e) other personal characteristics: pleasing personality, tactful, experienced, fast-thinker, open-minded, prudent, trustful, and a person with integrity.

Finding 9: All the participants acknowledged the need for more formal mentoring competencies development, with the objective of capacity building of the mentor, mentee, and organization through CPE, collaboration, actual mentoring, and LIS curriculum.

DISCUSSION

The generated themes, based on the findings of this study, are thoroughly discussed below.

Recognizing the lack of formal knowledge of mentoring and mentoring competencies among Filipino LIS school administrators. This theme corresponds to Findings 1 to 6. It is also supported by Bowen and Tobin's (2015) observation that many members of the academe have insufficient knowledge of governance or administration. One reason for this is that mentoring, in general, and mentoring

competencies, in particular, are not taught in depth to school administrators and librarians, as evidenced by the lack of coverage in major EDAD and LIS textbooks. This is despite the fact that mentoring has become an integral part of teacher preparation programs in schools (Fullan, as cited in Prawat & Peterson, in Murphy & Louis, 1999). Johnson (2003) agrees to the positive results of mentoring, especially if done by mentors holding doctorate degrees. In other words, mentoring is expected to happen naturally in an academic work setting.

Challenges, however, lay in the fact that (a) there have been very few literature and research on mentoring and mentoring competencies (Bozeman & Fenney, 2007; Johnson, 2003); (b) mentoring has yet to be clearly defined (Raymond & Kannan, 2014); and (c) the concept of mentoring remains unclear and imprecise (Berk et al., 2005; Davis, 2005, p. 9). Cohen's (2003) observation reinforces these claims about definitional issues and nuances in mentoring (Beres, 2010) when he states that: "... no valid and reliable scales or inventories existed either for pragmatic use as an evaluation tool by participants in mentoring programs or as an instrument for conducting scholarly studies of mentoring as an educational activity." Chen et al. (2016, p. 27) similarly point out that these instruments and scales "need more advanced and comprehensive tests."

Relevant empirical research on mentoring and mentoring competencies is therefore imperative. Academicians and researchers can start by looking at their own universities or colleges. Tanhueco-Tumapon (2016) notes the importance of conducting a mentorship study in the context of one's university or college, since such a study will provide useful data to improve the mentoring practices of its faculty. The statement of Villani (2002, p. 14) supports this: "mentors are best able to do their work when they explicitly learn about their roles."

Creating awareness and promoting formal mentoring among Filipino LIS school administrators. This theme is directly related to Finding 7. All the participants agreed that mentoring would positively impact LIS school stakeholders, such as students, faculty, and staff. This perception is shared by Johnson (2016), Burgess & Dyer (2009), Nakamura et al. (2009), Clutterbuck (2005), Clutterbuck & Lane (2004), Allen et al. (2004), and Klasen & Clutterbuck (2001). Wright and Wright (as cited in Johnson, 2003, p. 31) similarly claim that "organizations and academic institutions clearly benefit substantially from the presence of a vigorous mentoring culture." Cariaga-Lo et al. (as cited in Eisner, 2015) also acknowledge the significance of mentoring in building academic excellence in institutions.

Higher education institutions (HEIs), therefore, should formally promote mentoring to their academic personnel, most especially faculty members, since they are almost always considered to hold administrative and leadership positions. As Weller and Weller (2000, p. 271) have observed: "teachers constitute the largest group of potential leaders ... but little is being done to capitalize and to enhance their leadership capabilities." Significantly, participant A4 brought this up:

> Right now, dapat magandang i-address iyan, kasi we can tap our own LIS school administrators sa loob ng organizations [It is good to address this right now because we can tap our own LIS school administrators in our organization] to really impart their knowledge of how to perform this kind of activities ... the best practices in conducting mentoring.

The importance of promoting formal mentoring among LIS school administrators cannot be overly emphasized, given its positive impact on mentors. Participants A1, A2, and A3 shared their views:

> I think if the mentors are open, it would impact them positively ... I think I will also learn from the process. (A1)

> We learn from each other. So that is something that ... I actually enjoy. (A2)

> So probably the mentees can also share some of what they know or their competencies with the older ones, and then the other way around. (A3)

Formal mentoring also allows mentors to be mindful of the competencies needed to be effective in their role. As Clutterbuck (as cited in Clutterbuck & Lane, 2004, p. 56) clearly points out: "the more we formalize and measure mentoring ... the greater our understanding of the competencies of an effective mentor, the better we can help prospective and practicing mentors raise the quality of what they do."

Once there is a better understanding of the mentoring competencies of Filipino LIS school administrators, it is imperative to come up with the mentoring competencies development activities necessary to sustain mentoring programs. Villani (2002, p. 14) confirms, "training and continuing support are key factors in the success of mentoring programs." This is true especially for new LIS school administrators, who may lack the necessary knowledge. As Weller and Weller (2000, p. 249) put it, "new personnel lack the knowledge of how things get done within the organization, as well as its traditions, rituals, taboos, and unwritten standards of conduct." Formal mentoring programs also help school administrators "(a) establish and structure relationships between protégés and mentors; (b) positively influence protégés' career planning; (c) improve bedside, learning, and research skills; and (d) facilitate the creation of professional networks and provide social support for both protégés and mentors" (Schäfer et al., 2015, p. 201).

Bridging the gap between exhibited and considered mentoring competencies for Filipino LIS school administrators through a researched-based framework for mentoring competencies. This theme is associated with Finding 8. To be effective in their roles, mentors should possess certain competencies, as stated by Clutterbuck (2005) and Smith & Ingersoll (as cited in Wang 2010, p. 219) and Carraccio et al. (as cited in Abedin et al., 2012). Hence, mentoring competencies must be codified into a competency standard that can be used for the assessment of

individual performance (Clutterbuck, 2005). Ammons-Stephens et al. (2009, p. 63) assert that the "development of competencies, competency lists, or competency models has become a popular way to assess the strengths, needs, and potential contributions of individuals in an organization."

A research-based mentoring competencies framework embodying the appropriate concept and theory is thus vital to guide practitioners of EDAD. As Lunenburg and Ornstein (2012, p.2) point out, "EDAD, to an increasing degree, is characterized by using theory to explain and predict phenomena in EDAD." As a contribution to theorizing in EDAD, the study developed a very modest mentoring competencies framework for Filipino LIS school administrators. This includes competencies that are both innate and acquired (Sanghi, 2007), and consistent with the characteristics of effective mentors as indicated in the studies of Johnson (2016), Fleming et al., (2013), Dessler (2012), Villani (2006), Clutterbuck (2005), Clutterbuck & Lane (2004), and Hill (as cited in Coaching and Mentoring, 2004). The proposed framework is discussed more thoroughly in another section of this article.

Acknowledging the gap between the need for as well as the lack of formal mentoring competencies development activities for Filipino LIS school administrators. This is connected with Finding 9. Among Filipino LIS school administrators or practitioners, mentoring competencies development is generally done informally. Seyfarth (2002, p. 116) confirms this, saying, "most administrators learn the skills they need on the job in informal ways, either by trial or error or by observing an experienced administrator." To ensure effective mentoring, however, mentors must participate in formal mentoring competencies development programs. Joyce and Calhoun (as cited in Lunenburg & Ornstein, 2012, p. 463) stress that school administrators need to "help all personnel fulfill their potential by learning new skills and developing their abilities to the fullest." Olson (2008) and Johnson (2016) mention attendance in workshops and trainings as an opportunity for mentors to work with other teachers, making it possible for them to develop skills and promote mentoring to fellow faculty and administrators. This implies the crucial role of school administrators in "(a) stimulating attention to mentorship, (b) enabling institution-congruent mentoring structures, and (c) cheer-leading incremental improvements in the prevalence and quality of mentoring" (Johnson, 2016, p. 244).

Lunenburg & Ornstein (2012) suggest conducting a needs assessment before planning any professional development program. Moreover, as the program must typically include design, implementation, and evaluation phases, a framework will be a big help for Filipino LIS school administrators. It is important to note, however, that a framework alone is not enough to ensure effective mentoring. Other elements must be considered, such as: (a) policies to set direction, (b) training to develop capacities, and (c) processes to ensure quality (Southern Regional Education Board, 2007, p. 69).

Contribution to theorizing on EDAD: Factors beyond the conceptual framework and research paradigm of the study. The themes generated by

the principal findings of this study guided the generation or development of the mentoring competencies framework for Filipino LIS school administrators (see Figure 2). This is the study's contribution to fill the gap in the mentoring competencies literature and theorizing on EDAD. Mentoring competencies as a concept is very complex. In fact, the lists of traits, qualities, characteristics, and competencies are not enough to gain an adequate understanding of this phenomenon. As it is visually represented, the framework is analogous to a bridge that is made up of the anchors, deck, and columns. This bridge theory is discussed in detail below.

***The* deck.** This presents the path that leads the mentor toward successful mentoring. Just like any traditional bridge, the deck must be supported not only by the columns underneath it, but also by the anchors on both sides of the bridge. A gap in the deck would mean compromising the integrity of the entire bridge, making it impossible for anyone to pass across it. This is very similar to mentoring. If we are to expect the mentor to be successful, all the components of a sound mentoring competencies framework must be present, sturdy, and stable.

***The* anchors.** They support both ends of the deck with the help of the columns. Anchors represent the factors that should be considered in the mentoring competencies framework for Filipino LIS schools administrators. These consist of academic freedom, formal knowledge of mentoring competencies, formal mentoring promotion and awareness generation, and mentoring competencies development activities. A thorough discussion of these factors is provided in the succeeding paragraphs.

***The* columns.** These pertain to the skills, knowledge, aptitude, behavior, and other personal characteristics Filipino LIS school administrators must possess to

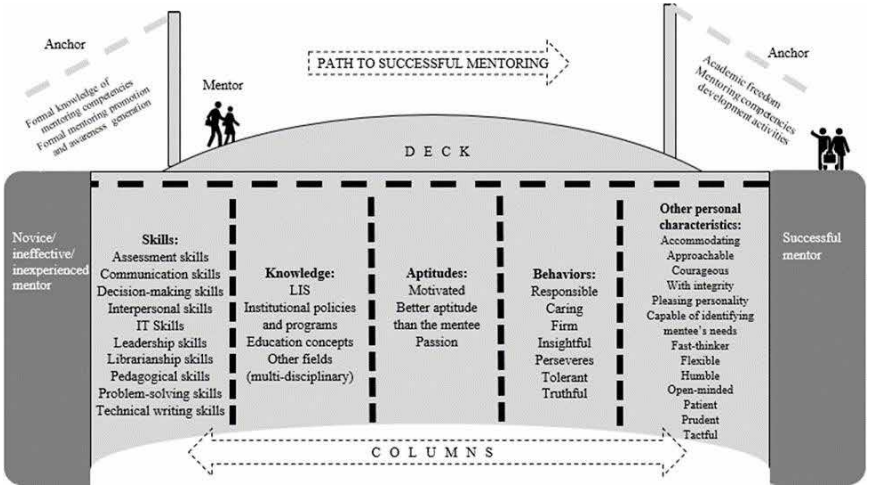

Figure 2. Mentoring competencies bridge for Filipino LIS school administrators

achieve positive and effective mentoring. The list shown in Figure 2 is intended to help practitioners, policymakers, and researchers understand more about the mentoring competencies expected of Filipino LIS school administrators. It can also guide Filipino LIS school administrators identify and plan specific activities or programs that will develop the needed competencies.

The structure of the five domains in Figure 2 is inspired by Sanghi's (2007) competency pyramid model, which the researcher modified based on the findings of this study. To remain true to the model, the researcher preserved the classification of competencies (i.e., behaviors, knowledge, skills, aptitude, and other personal characteristics) in coming up with the domains of mentoring competencies. However, unlike Sanghi (2007), who utilized a pyramid to explain his competencies model, this study chose columns of a bridge in providing a visual representation and explanation of the Filipino LIS school administrators' mentoring competencies. Columns seem to make better visual representations of essential behaviors, knowledge, skills, aptitude, and other personal characteristics of mentors because, like the columns of a bridge, these competencies support mentors in their journey toward successful mentoring. Like bridges, all the columns must be present, or the structure may not be able to support the weight of things or persons crossing the bridge and make it likely to collapse. Similarly, if mentors lack one of the mentoring competencies, their performance or relationship with their mentees might not reach its full potential.

Formalizing the concept of mentoring competencies is definitely a difficult task. But if done properly, this can yield helpful results. Clutterbuck (as cited in Clutterbuck & Lane, 2004, p. 56) points out: "the more we formalize and measure mentoring, the more we distance it from its informal, intuitive origins ... the greater our understanding of the competences of an effective mentor, the better we can help prospective and practicing mentors raise the quality of what they do."

CONCLUSIONS AND RECOMMENDATIONS

Using a multi-case study approach, the researchers sought to determine the importance of preparing Filipino LIS school administrators for their mentoring role through formal training in the related literature and in the mentoring competencies. Traditionally, mentoring by educational administrators has been based largely on what they know and their personal experiences as mentee or mentor. It is essential, therefore, that mentoring and mentoring competencies are included in the LIS curricula to equip educational administrators for their role as mentors.

A mentoring competencies framework will certainly guide the training of Filipino LIS school administrators and identify the focus of their competencies development. Awareness of the required competencies is important so that the students, faculty, and administrators know what they need to develop in themselves to be effective mentors. The framework also provides the structure and standards that can help researchers and practitioners of mentoring competencies.

The study revealed the factors to consider insofar as mentoring competencies are concerned, one of which is academic freedom. Educational administrators must ensure academic freedom is enjoyed by all in the academe. Mentoring competencies development should not, in any way, interfere in the exercise of this fundamental right. Future research on this factor can be useful to supplement studies of mentoring competencies.

Mentoring competencies development for Filipino LIS school administrators needs to be formally established and supported. Hence, LIS schools and their parent HEIs must initiate activities geared toward this, with proper allocation of time, fiscal, and other resources. Such activities should, however, take into consideration the principles and concepts of adult education or andragogy to ensure optimal and effective implementation.

Reflecting on the conclusions drawn from the findings, this study offers the following recommendations:

For policymakers

a. Revisit the LIS and EDAD curricula and determine how mentoring and mentoring competencies literature and research can be integrated into this.
b. Identify and include programs and activities specifically on mentoring competencies development and provide ample time and resources in support thereof, in line with the provisions of Republic Act No. 10912 (Continuing Professional Development Act of 2016).
c. Formalize the establishment of mentoring and induction programs and mentors' mentoring competencies evaluation and assessment in HEIs.

For future research

a. Use the proposed framework in this study as basis for context validation and codification of mentoring competencies in research work on national mentoring competencies frameworks for Filipino LIS school administrators.
b. Study the modalities of mentoring, such us peer mentoring, group mentoring, one-on-one mentoring, and e-mentoring.
c. Do a comparative analyses of the results of this study with other competencies frameworks identified in the literature.
d. Based on the limitations of this study, research on the discrepancy between exhibited and considered mentoring competencies as identified by the participants in this study and on how academic freedom might impact mentoring in HEIs.
e. Study the implications of adult education principles and concepts in the design and implementation of mentoring competencies development programs and activities.

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