

Exploring Library Activities, Learning Spaces, and Challenges Encountered Towards the Establishment of a Learning Commons

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Résumé de l'article

Objectives – This study was conducted to determine the library activities, preferred learning spaces, and challenges encountered by the students of Mountain Province State Polytechnic College (MPSPC) Library, Philippines. Specifically, it sought to answer the following problems: 1) What are the library activities of MPSPC students?; 2) What are the preferred learning spaces in terms of a) physical environment and b) virtual environment?; and 3) What are the challenges associated with library learning activities encountered by the MPSPC students? The study then will be used to explore the feasibility of proposing a learning commons.

Methods – This study used a descriptive research method to determine the library activities, learning spaces, and challenges encountered by MPSPC students in the Philippines. It made use of a researcher-made survey questionnaire. Problem statement number 1 dealt with the library activities of MPSPC students. Problem statement number 2 dealt with the preferred learning spaces. Data were gathered from 500 graduate and undergraduate students from a total of 3,015 enrolled during the first semester of the SY 2019-2020 using a purposive random sampling technique. Descriptive statistics such as frequency, percentage, and rank were used.

Results – The most frequent library learning activities performed by the MPSPC students were doing assignments, using reference books, searching/browsing printed materials, reviewing notes, and writing. Students' least frequent library activities were surfing the web, using the computer, using e-resources, eating while reading/writing, and sleeping. The most preferred physical learning spaces were a makerspace, group study spaces, quiet study rooms, and individual study spaces (individual study carrels), while the most preferred virtual learning spaces were computer workstations, interactive learning spaces, video viewing stations, and internet cafés. The overall challenges encountered by MPSPC students were insufficient learning spaces, poor internet connection, inability to find documents or books needed, lack of reading area, lack of printing or photocopying service, lack of professional books, and lack of e-resources. The least challenges encountered by MPSPC students included very high library fees, poor ventilation, poor lighting facility in the designated area, uncomfortable furniture, and lack of staff's kindness.

Conclusion – The MPSPC students perform various educationally purposeful library activities, which are generally engaging and support the library's mission. Students vary in their needs of physical and virtual learning environments. Both of these learning spaces are in demand among students, which are the key components of the learning commons. Also, they specified the need for adequate learning spaces to support their various library learning activities. The findings serve as the basis for crafting a project proposal to establish a learning commons tailored to MPSPC students' library activities and preferred learning spaces, with consideration for the challenges encountered by students, to support their learning and academic success.





Research Article

Exploring Library Activities, Learning Spaces, and Challenges Encountered Towards the Establishment of a Learning Commons

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Abstract

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Conclusion – The MPSPC students perform various educationally purposeful library activities, which are generally engaging and support the library's mission. Students vary in their needs of physical and virtual learning environments. Both of these learning spaces are in demand among students, which are the key components of the learning commons. Also, they specified the need for adequate learning spaces to support their various library learning activities. The findings serve as the basis for crafting a project proposal to establish a learning commons tailored to MPSPC students' library activities and preferred learning spaces, with consideration for the challenges encountered by students, to support their learning and academic success.

Introduction

A library is a place for nurturing the mind. It supports learning, information, and research needs; thus, it is vital to students' educational growth. In support of an institution's educational objectives to meet its diverse learners' needs, libraries should provide a quiet and social space for students' various learning activities (Choy & Goh, 2016), a healthy and safe environment for learning (Barton, 2018), and offer education and relaxation (Waxman et al., 2007). Moreover, the library is a learning environment characterized by abundant and rich information sources and well-designed learning spaces. Within a library space, students identify physical and virtual environments that help them achieve their learning goals.

Twenty-first century learners are connected to digital technologies as their primary learning tools, but as global changes in information occur, students' learning activities are affected (McLeod, 2015). The nature of tertiary education drastically changed as the 21st century evolved and has impacted the nature of academic libraries (Turner et al., 2013). Twenty-first century learning is often connected to an inquiry

approach in which students actively engage in their learning, accessing material and scaffolding their knowledge to create rather than solely acquire information (Stripling, 2008). The preferences of library users in library spaces can change quickly and unpredictably (Gstalder, 2017), which affects library support of the teaching and learning process (Roberts, 2007). In relation to this, Turner et al. (2013) observed that new teaching and learning pedagogies in higher education were influenced by social constructivist learning theories and self-discovery practices. These theories supported that the most significant learning takes place when individuals participate in social learning activities (Matthews et al., 2011). As such, library users have high expectations of quality academic facilities, such as the provision of library spaces, library commons, and the like (Flaspohler, 2012).

How can a library position itself in these academic environments? How can a library be responsive to the changing nature of information access and the changing nature of users? There is a need for rethinking the information and physical needs of students. Moreover, there is a need for academic library innovation to better support the diverse learning needs of students and accommodate students' learning styles. Lankes (2016) suggested that redesigning and conceptualizing the library is essential to the 21st century. He further stated that a move to a learning commons approach is one tactic to meet users' expectations. Roberts (2007) believed that establishing a learning commons will support the teaching mission of an institution. It would complement new teaching and learning pedagogies in higher education which have shifted away from a teaching culture and toward a culture of learning (Bennett, 2003).

Furthermore, libraries reinvent themselves as they face new roles, such as making resources more accessible, connecting learners, and constructing knowledge. Also, students do not just need information, they need a place that encourages active involvement and motivates them. Learning commons allow various learning activities (Holland, 2015), and help both libraries and students remain current with modern demands and lifestyles.

With these paradigm shifts in libraries and education, changes gradually occur with the library's environment and ambiance. In the Mountain Province State Polytechnic College (MPSPC) Library, not enough areas serve the different learning needs of library users. A lack of technology and facilities to help library users explore, create, and share knowledge has been observed. Moreover, poor services have reduced both the number of users and use of the library collection. Students' needs and expectations affect all aspects of their learning, specifically in the library. Diverse reading habits and preferences of the students have been observed by the researchers as well.

The MPSPC Library has been accessible to all users because it is almost centrally located on campus, but the reading area was not enough to accommodate the students. Instead, students use the corridor as a learning area since the reading room was insufficient. Students studying in the corridor and even inside the room complained to the library staff because they were distracted by students passing by. Students found it hard to study and concentrate because of the noise. There were not enough individual study spaces or group discussion rooms because the room was just a common space for every user engaged in any activity. Based on observation by the researchers, the problem was the slow internet connection, wherein students found it hard to conduct research online, which caused some students to leave the library. Faculty and school administrators noticed complaints about the insufficient reading area and the misbehaviour of users. Hence, the plight of this academic library encouraged the researchers to conduct this study.

Problems of the Study

This study was conducted to determine the library activities, preferred learning spaces, and challenges encountered by the students of MPSPC Library. Specifically, the study sought to answer the following problems: 1) What are the library activities of MPSPC students?; 2) What are the preferred learning spaces in terms of a) physical environment and b) virtual environment?; and 3) What are the challenges associated with library learning activities encountered by the MPSPC students?

Scope and Limitations of the Study

The study was limited to one state college in the Philippines primarily to determine the learning activities and spaces in the library and the challenges encountered by the students, which served as the basis for establishing a learning commons. This was conducted during the first semester of SY 2019-2020 and focused on 500 participants who were both undergraduate and graduate students.

Literature Review

In the Philippines, some libraries are still traditional in giving services to their users, resulting in a lack of social opportunities within the library. This limits the opportunities for students to interact with each other in the library spaces (McCunn & Gifford, 2015). This can be observed through the image projected by the librarian, such as shushing students for speaking too loudly, ringing a bell to remind them of their unruly behaviour, and the like. With the new breed of library users, their diverse learning activities, habits, styles, and needs are changing and should be addressed. This could be answered by adopting a new library model such as the learning commons, which allows students to enhance their social skills while researching, reading, and learning. In establishing a model, there are imperative things to consider, such as: 1) to identify the key priorities, such as which learning activities occur in a successful learning commons (King, 2016); 2) to know the learning activities of the users better to realize their needs (Spencer, 2007); 3) to analyze the various activities, including which are most prevalent among library users (Choy & Goh, 2016); 4) to understand the various learning needs of students, such as learning activities, preferred learning spaces, and challenges faced by students (Qayyum Ch. et al., 2017); and 5) to relate the various activities of the students in the library to academic achievement (Paretta & Catalano, 2013).

Implementing a learning commons would primarily encourage students to use the library and benefit from its services. However, this idea must be supported by asking the right questions to students regarding their library activities, how they learn, and their use of library services (Suarez, 2007). These learning activities and study space preferences of library users relate to establishing a functional learning commons. Thus, surveying students' library activities and preferred learning spaces provides the evidence necessary to make effective decisions about what facilities and equipment should meet their various needs (McCrary, 2017).

The learning spaces model furthers the mission of the learning commons by providing various formal and informal flexible learning spaces that facilitate better learning (Turner et al., 2013), and these physical and virtual learning spaces can impact learning (Oblinger, 2006). It can bring people together to encourage exploration, collaboration, and discussions. These spaces should be flexible and networked, bringing together formal and informal activities in an environment that acknowledges that learning can occur anywhere, at any time, in either physical or virtual spaces. The physical and virtual environments provide students with a comfortable place to relax, learn, and create (Cicchetti, 2015). Moreover, spatial designs influence students' learning activities, and the relevance of spatial designs that encourage and

support dynamic, engaged, and inspired learning is a fundamental feature of the learning spaces (Roberts, 2007). The impact of spaces becomes more prominent as higher education pedagogical practices move from the traditional to a more flexible, student-centred approach. Evolving learning spaces convey a new image of the library, marking a new direction in library and educational philosophies (Somerville & Harlan, 2008).

The development of learning spaces supports innovative pedagogical approaches and environments that promote student engagement in the learning process (Elkington & Bligh, 2019). How and why users have different preferences in learning spaces depends on their individual needs and styles. Moreover, there are advantages to student learning in providing a range of spaces. Various collaborative and independent spaces promote self-directed learning (Keating & Gabb, 2005). Non-quiet spaces in the library, such as group study and flexible learning spaces, are ideal for many library users (Freeman, 2005).

A learning commons consists of physical and virtual environments designed for learning. The centre for student learning fosters creativity, encourages patron use of space, offers new technologies, and uses space creatively to encourage inquiry-based thinking (Mihailidis & Diggs, 2010). It is a space designed for collaboration and access to information and other tools, such as electronic resources. Here, students will be empowered as they take part in the learning commons, which will lead to more learning and better preparation for their careers. Students' involvement in the learning commons produces a better student success rate (Khan, 2020), and students learn best when they are allowed to learn in an environment that is both welcoming and supportive (Holeton, 2020).

A clear understanding of how the learning commons benefits students is also the foundation for a successful transition (Cicchetti, 2015). Libraries need to remain relevant and support learning in new ways. Libraries recognize that, because of the Internet and Web 2.0 applications, students have new powers and abilities that facilitate independent access to information (Watstein & Mitchell, 2006). Blummer and Kenton (2017) mentioned that learning commons has no standard definition. Yet, learning commons represent academic library spaces that provide computer and library resources and a range of academic services that support learners and learning. Turner et al. (2013) argued that designers of learning commons readily understand that learners are not merely information consumers. Instead, they actively participate with information to create meaningful knowledge and wisdom.

As society continues to experience a pedagogical shift in learning, students should be given more opportunities to make connections, collaborate, communicate, think critically, and be creative. Learning in a learning commons environment is purposeful, authentic, active, and student-centred (McCunn & Gifford, 2015). There have been numerous studies on learning commons, one of which performed surveys on their own users' needs (Yebowaah & Plockey, 2017). Students' various learning activities have to be considered in order to provide appropriate learning spaces (Brown-Sica et al., 2010). Rawal (2014) asserted that:

Like Bandura's (1977) idea of "reciprocal determinism," where the interactions among environmental, cognitive, and behavioral influences create the synergy to affect how one behaves in a specific context, so does the reciprocity among the physical, virtual, and socio-cultural aspects of a learning commons affect how students learn within a commons. A truly holistic learning commons is a nexus for negotiating ideas and producing new knowledge. It is that bustling bazaar where

knowledge, discoveries, and innovations are born, nurtured, and set forth to impact the rest of the world. (p. 67)

Our review of the literature revealed that our study is unique as it dwells on library activities and preferred learning spaces among students in the Philippines. Hence, this study will be used to explore a learning commons as one of the new features of our library. Barton (2018) mentioned that the learning commons model is geared to understand and identify learning needs in accordance with the learning activities, preferences, and challenges of library users.

Methods

This study utilized a descriptive method of research to determine the library activities, learning spaces, and challenges encountered by MPSPC students in the Philippines. It made use of a researcher-made survey questionnaire. Problem number 1 dealt with the library activities of MPSPC students and was based on the study of Cabfilan (2012). Problem number 2 dealt with the preferred learning spaces and was adopted from the study of Peterson (2013). However, it has been modified to suit the research design by contextualizing the items in the MPSPC Library. The survey questionnaire is composed of three parts, namely: 1) the different library activities of MPSPC students, 2) the preferred learning spaces, and 3) the challenges encountered by the respondents relative to learning activities within the library. This questionnaire underwent face and content validity by three library and information science professors and one research professor at Saint Mary's University (Philippines).

Data were gathered from 500 graduate and undergraduate students from 3,015 enrolled during the first semester of the SY 2019-2020, from August to December 2019 at MPSPC, Bontoc Campus (Table 1), using a purposive random sampling technique. In gathering the needed data, the following procedures were undertaken: 1) A permission letter was sent to the MPSPC President to seek approval for the conduct of the study for the students enrolled in the various programs; 2) The letter was addressed to the President through the Deans of undergraduate and graduate studies; 3) Upon seeking approval, a letter was submitted to the Director of MPSPC-Registrar for the number of enrollees in the various programs to identify the number of students in each program; 4) The questionnaire was administered to the students who were visiting the library voluntarily. One of the researcher's colleagues helped administer the questionnaire; 5) An informed consent letter was attached to the questionnaire. The respondents did not receive any payment for their participation nor any reimbursements. Participants had the right to refuse to continue, with any information already provided not used in the study. It was emphasized to them the assurance of the confidentiality of their answers; 6) The questionnaires were immediately retrieved and checked if all items were answered; and 7) Questionnaires were submitted to the statistician. Descriptive statistics such as frequency, percentage, and rank were used.

Table 1
Respondents of the Study

Course/Department	No. of Enrollees	No. of Respondents (n)
Bachelor of Science and Criminology	1,244	206
Bachelor of Science in Nursing	213	35
Bachelor of Science and Information Technology	123	20
Bachelor of Science Office Administration	75	12
Bachelor of Arts in Political Science	41	7
Bachelor of Science in Business Administration	170	28
Bachelor of Science in Accountancy	158	26
Bachelor of Secondary Education	400	66
Bachelor of Elementary Education	233	39
Bachelor for Early Childhood Education	9	2
Bachelor of Special Needs Education	13	3
Graduate School	174	29
Bachelor of Science in Tourism Bachelor of Science in Tourism Management Bachelor of Science in Hotel and Tourism Management Bachelor of Science in Hospitality Management Associate of Arts in Hotel and Restaurant Management	162	27
Total	3,015	500

Results and Discussion

The Library Activities of Students

This study refers to the various activities performed by diverse students in the library. These learning activities are purposeful and aim to improve behaviour, information, knowledge, understanding, attitude, values, or skills (Table 2). This includes different types of learning, such as self-learning and others, and learning could be formal or informal (Eurostat, 2016).

The preferred activities done in the library were *doing assignments, using reference books, searching or browsing printed materials, reviewing notes, writing research works, reading (periodical/ fiction books/ non-fiction books), studying in a group, and studying alone on my books or materials*. These activities were all academic-related, supporting the fact that the library is the first place to get information as it houses universal knowledge (Bailin, 2011). This indicates that libraries significantly impact students' academic achievements (Khan, 2020; Sriram & Rajev, 2014). It could be attributed to the availability of resources when doing their assignments. Also, students go to the library to search or browse printed materials and eventually use reference books, which suggests that materials in the library are useful and relevant.

Table 2
The Library Activities of Students

Activities	n	%	Rank
Doing assignments	455	91.0	1
Using reference books	396	79.2	2
Searching/ Browsing printed materials	385	77.0	3
Reviewing notes	384	76.8	4
Writing (research works)	369	73.8	5
Reading (periodical/ fiction books/ non-fiction books)	362	72.4	6
Studying in a group	345	69.0	7
Studying alone on my own books/ materials	324	64.8	8
Sitting comfortably while reflecting	316	63.2	9
Interacting with librarians/ Getting help from staff members	314	62.8	10
Listening to music while studying/ reading/writing	290	58.0	11
Surfing the web	270	54.0	12
Using computer	265	53.0	13
Using e-resources	255	51.0	14
Eating while reading/ writing	168	33.6	15
Others: Sleeping	35	7.0	16

This coincides with Iroaganachi and Ilogho (2012), who found that students use reference materials frequently, which can be attributed to the orientation program designed for students. On the other hand, *listening to music while studying, reading, or writing; using e-resources; using computers; surfing the web; and eating while reading or writing* were the least common activities done in the library. Also, *eating while reading or writing* was ranked 15th, which means that some students do not favor the library policy that food and drink are prohibited inside. However, some MPSPC students prefer a place to study while having a snack, and this could be observed in some libraries allowing them to bring food and drinks. This finding corroborates the idea in 21st-century learning wherein libraries are innovating to meet the demands of these learners, in which food and drink are welcomed in the libraries (Roberts, 2007).

Also, it is worthwhile to mention that 35 respondents wrote *sleeping* as one of their library activities. This connotes that the library is not just a place to study but a place that provides relaxation to students (Waxman et al., 2007).

However, it is very surprising to note that learning activities relating to computer technology, such as *surfing the web, using computers, and using e-resources* were ranked 12th, 13th, and 14th, respectively. Seemingly, students do not prefer using information technology to satisfy their library information needs, thus resulting in minimal utilization of e-resources (Yebowaah & Plockey, 2017). This contradicts the findings of Martin (2008), that students use technology frequently thus changing the learning environment of higher education. This suggests that a slow internet connection would make students dissatisfied with using computers and resources and make it challenging to research online.

The Preferred Learning Spaces

According to Head (2016), there are appropriate library designs for learning spaces, and they should be different in every library since it is in accordance with the learning activities and preferences of every

library user. It was further pointed out by Bieraugel and Neill (2017) that designing library spaces is imperative for the different intended needs, activities, preferences, and styles of library users. Also, Choy and Goh (2016) reiterated that the design of spaces in support of learning is far more complex as a variety of users' activities and styles need to be considered.

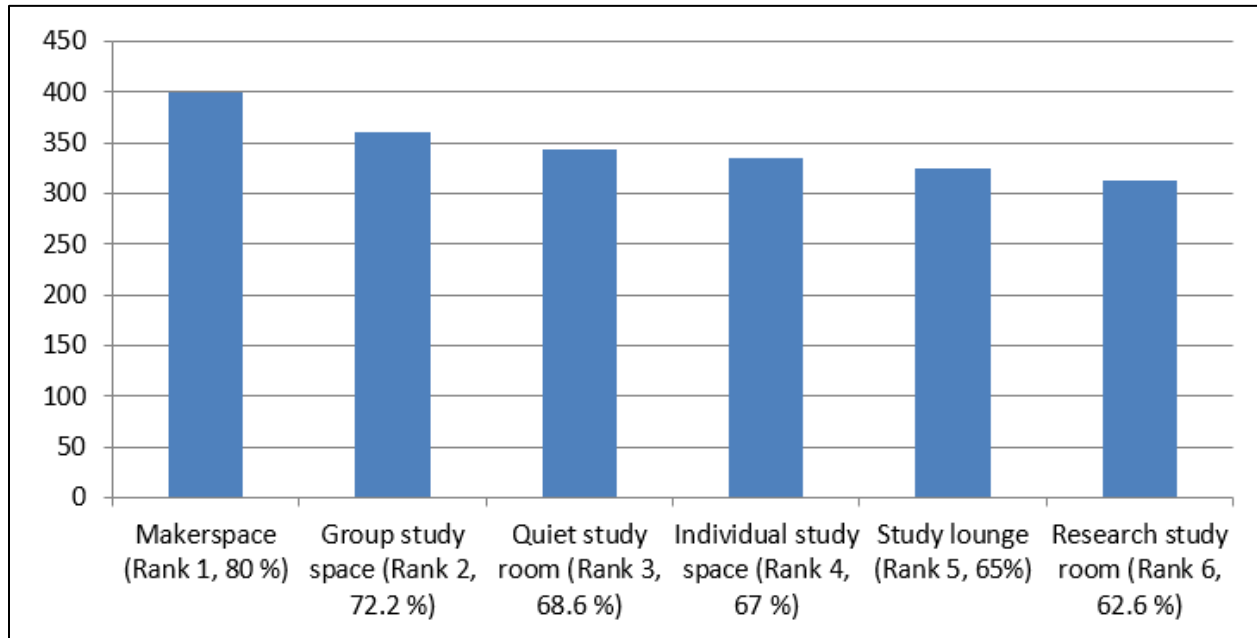


Figure 1
Preferred learning spaces in physical environment.

In this study, the most preferred learning spaces in terms of physical environment were *makerspace*, *group study spaces*, *quiet study rooms*, and *individual study spaces*, respectively, as shown in Figure 1. *Makerspace* was the most prevalent, which infers that learning is best acquired through hands-on activities. *Group study space* was second, which assumes that students may feel they can learn better in groups. This indicates that noise should be welcomed and considered in the group study area within the library (Mohanty, 2002). Meanwhile, *study lounge* was ranked 5th as the preferred learning space, implying that there are students who prefer working while socializing as well (Waxman et al., 2007). Undeniably, some students expect the library to offer space not only for scholarly pursuits but also for socializing (Paretta & Catalano, 2013). However, some students still prefer *individual study spaces/ individual study carrels* and *quiet study rooms*. Seemingly, they prefer to learn best in silence and do not like being disturbed when they are studying (Arenson, 2013).

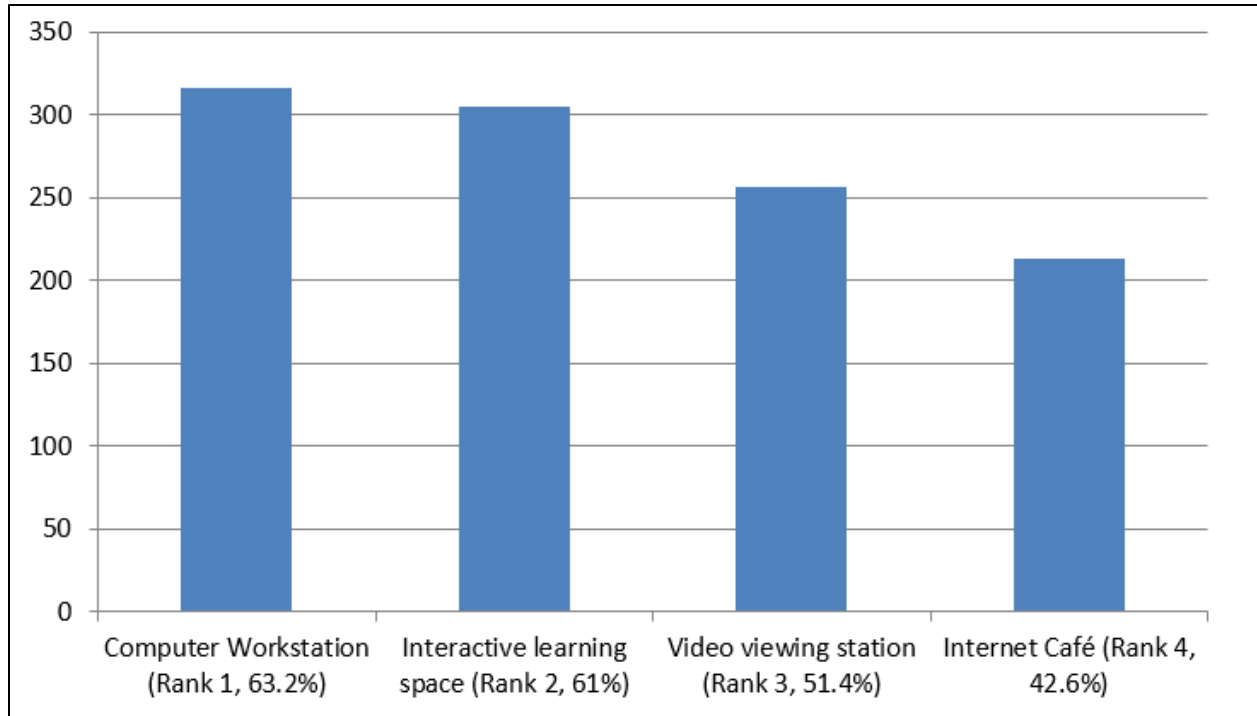


Figure 2
Preferred learning spaces in virtual environment.

The most preferred learning spaces in the virtual environment were *computer workstations*, *interactive learning spaces*, *video viewing stations*, and *internet cafés*, respectively (Figure 2). The computer workstation is the most preferred learning space in terms of the virtual environment. This implies that activities which demand computer are prevalent among the students. As mentioned by Singh and Wadhwa (2006), computers are an excellent learning tool. This signifies that 63% of library users prefer to work individually in a computer workstation, while others prefer working in an interactive learning space.

It is interesting to note that *interactive learning space* was ranked 2nd, which implies that students want spaces that encourage them to study independently through technology. This finding supports the idea that learning is engaging, and engagement is expected to increase students' learning outcomes (Vercellotti, 2018). This preference for interactive learning space implies that students have varied learning styles, and, in this case, it requires the use of technology for them to learn better.

Also, the *video viewing station* was ranked 3rd, which implies that there are students who are both visual and auditory learners who prefer watching and listening in some areas of the library. As mentioned by Alawani et al. (2016), students still prefer video technologies that boost their learning experience. However, internet café ranked last, implying that few students prefer learning while having coffee or snacks. Seemingly, this idea is not yet practiced by the students and the library. Perhaps their traditional beliefs of eating inside the library are not accepted as the standard norm. As mentioned, 21st-century libraries should meet the needs of these learners, thus allowing them to eat while learning in the library (Holland, 2015).

As shown in Figures 1 and 2, the *physical and virtual environments* were rated as learning space preferences among students, which are the key components of a learning commons (Pressley, 2017). The findings show that students demand such spaces in accordance with their learning activities in the library.

Challenges Encountered by the MPSPC Students

McMullen (2008) described a learning commons as a “dynamic place that encourages learning through inquiry, collaboration, discussion, and consultation.” (p. 1). She further asserted that it is necessary to understand the activities engaged by students. The learning commons is not just a concept but a place for learning in the library (Roberts, 2007). These learning commons have been created to support the teaching missions of the respective parent institutions. Academic institutions support this model because faculty and administration recognize that students learn in dynamic and various ways. McCrary (2017) supported the need to develop a learning commons since the library is not just a place to store books and study but rather a place where meaning and learning emerge from access to knowledge. However, its implementation can also be hampered by challenges, which are listed in Table 3.

Table 3

Challenges Encountered by the MPSPC Students Relative to Their Library Learning Activities

Areas	Challenges	n	%	Rank
Physical Facilities	Insufficient learning spaces for various activities	319	63.8	1
Services	Poor internet connection	262	52.4	2
Services	Inability to find documents/ books needed	231	46.2	3
Physical Facilities	Lack of reading area/ Reading area is not enough	209	41.8	4
Services	Lack of printing or photocopying services	208	41.6	5
Library Collection	Lack of professional books	207	41.4	6
Library Collection	Lack of e-resources	206	41.2	7
Physical Facilities	Lack of toilet facilities	166	33.2	8
Physical Facilities	Lack of installed security equipment	149	29.8	9
Financial Resources	Lack of support /budget is not enough to sustain library projects or programs	142	28.4	10
Human Resources	Lack of support staff	135	27	11
Human Resources	Limited number of professional librarians	124	24.8	12
Financial Resources	Very high library fee	118	23.6	13
Physical Facilities	Poor ventilation	113	22.6	14
Physical Facilities	Poor lighting facility in the designated reading areas	112	22.4	15
Physical Facilities	Uncomfortable furniture	110	22	16
Services	Lack of staff’s kindness	109	21.8	17

Among the physical facilities, *insufficient learning spaces for various activities* (ranked 1st, with 63.8% in agreement) and *lack of reading area or reading area is not enough* (ranked 4th, with 41.8% in agreement) were challenges encountered by the MPSPC students. Students have various activities, but not all spaces can accommodate these activities. Libraries should be well designed to accommodate students' learning requirements and enhance their learning outcomes and satisfaction (Li et al., 2018). Furthermore, the result corroborates with the study of Bailin (2011) that students demand ample space for reading, especially when they flock to the library. Indeed, Ranganathan's 5th law states that the library is a growing organism (Barner, 2011). As collections continuously increase, the physical spaces also widen to accommodate more library users and eventually maximize the use of the collections, thus making the library a growing institution of learning.

The least challenges encountered on physical facilities were *lack of toilet facilities*, *lack of installed security equipment*, *poor ventilation*, *poor lighting facility in the designated reading area*, and *uncomfortable furniture*. In relation to the findings on preferred learning spaces, these challenges reported by the respondents might impact *group study spaces*, *study lounges*, *individual study spaces/ individual study carrels*, and *quiet study rooms*. Poor ventilation has great impact on students' learning, and this was supported by Haverinen-Shaughnessy and Shaughnessy (2015), who found that students did not perform well in a poorly ventilated environment. Also, inadequate lighting in the library is not suitable for students and would affect students' performance. The findings also imply that there are students seeking comfort while learning (McDonald, 2011). Hence, librarians and administrators should make libraries more comfortable for students (Mohanty, 2002). The *lack of installed security equipment* (ranked 9th) can also be attributed to non-return of items by borrowers and theft of library materials (Maidabino & Zainab, 2011). Thus, it is necessary to provide security equipment in the library to ensure longevity, availability, and effective provision of services to users.

Table 3 revealed that among the top five challenges encountered by the MPSPC students, three were reported that emerge from challenges encountered relative to library services, namely: 1) *poor internet connection* (52.4%, ranked 2nd), 2) *inability to find documents or books needed* (46.2%, ranked 3rd), and 3) *lack of printing/ photocopying services* (41.6%, ranked 5th). *Poor internet connection* is quite noticeable because students frankly complain about the internet connection in the library. This shows that there are MPSPC students who are internet users, and they surf the net since information is easily available (Shrestha, 2008). Thus, students prefer using the internet, as compared with printed materials, because it provides information readily at all times. The internet also gives faster access to information as well as offers a large amount of information (Kumah, 2015). As mentioned by Yebowaah (2018), the use of internet among students has a positive influence on their academic performance. Also, the MPSPC students ranked 3rd the *inability to find documents or books needed* (46.2%). This shows that students are not aware of how materials are organized in the library. This can be attributed either to students' unfamiliarity with the services or how the materials are organized (Hughes, 2010). *Lack of printing/photocopying services* was also in the top five challenges encountered (41.6%, ranked 5th). This suggests the need for photocopying services to save time in taking down notes from books in the library. Materials in the library often copied by students are of more rare materials that tend not to be available in book shops for sale. Sriram and Rajev (2014) mentioned that libraries must provide various services such as photocopying to enable users to utilize the library collections at greater potentials. On the other hand, the *lack of staff's kindness* (21.8%, ranked 17th) was ranked last among the challenges encountered by the students, which shows that librarians are approachable and accommodating.

Under human resources, *lack of support staff* (27%, ranked 11th) as one of the challenges encountered by students suggests the need for support staff. Students do not just deal with librarians every time they visit

the library, but also paraprofessionals serving them (Guion, 2012). This implies that support staff have to undergo seminars on how to manage library patrons. The *limited number of professional librarians* (24.8%, ranked 12th) can be either attributed to a lack of professional librarian positions (with appropriate title, salary, and benefits) or a lack of licensed librarians. Tanhueco-Tumapon (2017) reiterated that librarians should be given an academic status (that is, like any teaching or research faculty member), wherein there is a corresponding increase in salary and therefore is due an academic rank provided they have a master's degree. Having an academic status in higher education leads them to be motivated in doing their functions as dignified librarians, since librarians and paraprofessionals may have different service standards.

For the library collection, *lack of professional books* and *lack of e-resources* were the challenges encountered by students. This implies that the collections of both books and e-resources were perceived to be insufficient. To address this, the library should build partnerships among other academic libraries to strengthen its collection (Munro & Philips, 2008) and increase its budget to purchase more collections.

In terms of financial resources, *lack of support/budget is not enough to sustain library projects or programs* (28.4%, ranked 10th), and *very high library fees* (23.6%, ranked 13th) were the perceived challenges encountered by the students. State colleges and universities in the Philippines collect fewer library fees than in private schools. This may be why it is ranked almost at the bottom. Although these challenges were at the bottom, the budget is essential in realizing library programs and projects, such as establishing or improving a library space. It could mean that increasing library fees would make students expect that the library can satisfy their needs and demands.

Recommendations

The library should support the various learning activities of students, which include doing assignments, using reference books, searching/browsing printed materials, reviewing notes, writing, and others. It should design functional and flexible learning spaces tailored to the students' ideal needs, such as their learning activities. Thus, the study suggests strong recommendations to provide various learning spaces such as a makerspace, group study spaces, quiet study rooms, individual study spaces, computer workstations, interactive learning spaces, video viewing stations, and an internet café within the library premises to cater to the diverse students with various learning preferences and learning activities.

To continue building literature and knowledge in this area, it is recommended to conduct further research to include: 1) other areas such as policies, budgeting, and linkages; 2) categories of users such as faculty, alumni, and visitors; and 3) statistical tools such as using correlations, factor analysis, and others.

Conclusion

A learning commons is a place to culture the mind wherein student learning encourages creativity, promotes social learning, enhances new information technology skills, and stimulates inquiry-based thinking. It is a space to nurture students' minds for collaboration, learning, and interaction through a welcoming and supportive environment.

The MPSPC students perform various educationally purposeful library activities. The activities among the students are generally engaging and support the library's mission. Students vary in their needs of physical and virtual learning environments. Both of these types of learning spaces are in demand among students, which are the key components of the learning commons. Also, students specified the need for

adequate learning spaces to support their various library learning activities. Thus, the findings serve as the basis for crafting a project proposal to establish a learning commons tailored to MPSPC students' library activities and preferred learning spaces, with consideration for the challenges encountered by students, to support their learning and academic success.

Author Contributions

Mrs. Maryjul T. Beneyat-Dulagan: Conceptualization (equal), Data curation, Formal analysis (lead), Investigation (equal), Writing – original draft (lead), Writing – review & editing (equal) **Mr. David A. Cabonero:** Conceptualization (equal), Formal analysis (supporting), Investigation (equal), Visualization, Writing – original draft (supporting), Writing – review & editing (equal)

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Appendix
Research Instrument

Dear Respondents,

A pleasant day!

The undersigned is presently engaged in gathering data for her research entitled “Exploring Library Activities, Learning Spaces, and Challenges Encountered Towards the Establishment of a Learning Commons” as a requirement for the Degree Master in Library and Information Science.

In line with this, the researcher earnestly requests you to be one of the respondents of the research study. The researcher assures that your answers will be dealt with utmost confidentiality.

Thank you and God bless!

Sincerely yours,

Researchers

Name (Optional): _____

Course/Year: _____

1. The following are the library activities performed by students in the library. Put a check mark (✓) to all that applies to you.

Doing assignments	
Eating while reading/writing	
Interacting with librarians/ Getting help from staff members	
Listening to music while studying/reading/writing	
Reading (periodical/fiction books/non-fiction books)	
Searching/ Browsing printed materials	
Sitting comfortably while reflecting	
Studying alone on my own books/materials	
Studying in a group	
Surfing the web	
Using computer	
Using electronic resources	
Using reference books	
Writing (research works)	
Reviewing notes	
Others (Pls. specify)	

2. Which of the following is your favorite place to study or learn at the library? [You may check (✓) one or more].

2.1. PHYSICAL ENVIRONMENT

Group study space - a space where you can talk with friends while studying	
Individual study space (Individual study carrels) - a cubicle, stall, enclosed area for individual to read and study	
Makerspace -a space where you can create hands-on projects in groups or individually	
Quiet study room - a private, very quiet workspace	
Research study room -a room assigned for individual for research and other scholarly activities that requires extensive use of library materials	
Study lounge - an area open for students for gathering, studying and relaxing	

2.2 VIRTUAL ENVIRONMENT

Computer workstation - an area consist of computer that is connected to a network for individual use	
Internet café - an area where there is convenient access to coffee that offers internet access on its own computers or desktops	
Interactive learning space -a space provided for individual or group user/s for school work that needs computer technology	
Video viewing station -an area that is highly equipped with computer for watching specifically for educational purposes	

3. Put a check mark (✓) on the challenges you encountered in the library. [You may check one or more].

A. HUMAN RESOURCES	
Limited number of professional librarian	
Lack of support staff	
Others (pls. specify)	
B. PHYSICAL FACILITIES/ RESOURCES	
Poor lighting facility in the designated reading areas	
Poor ventilation	
Lack of toilet facilities	
Lack of installed security equipment	
Insufficient learning spaces for various activities	
Uncomfortable furniture	
Lack of reading area/ Reading area is not enough	
Others (pls. specify)	
C. FINANCIAL RESOURCES	
Very high library fee	
Lack of support /budget is not enough to sustain library projects or programs	
Others (pls. specify)	
D. LIBRARY COLLECTION	
Lack of professional books	
Lack of e-resources	
Others (pls. specify)	
E. SERVICES	
Inability to find documents/ books needed	
Lack of staff's kindness	
Lack of printing or photocopying services	
Poor internet connection	
Others (pls. specify)	