

Is it enough to build? : Users' Awareness and Utilization of AEA-IRC Learning Commons

Mary Ann D. Estudillo, Mary Ann J. Salvador, Ludivina A. Cambay, Arlene R. Manzo

De La Salle University-Dasmariñas,
DBB-B Dasmariñas City 4115
Cavite, PHILIPPINES

E-mail: mdestudillo@dlsud.edu.ph; mjsalvador@dlsud.edu.ph; lacambay@dlsud.edu.ph; armanzo@dlsud.edu.ph

ABSTRACT

The study aimed to find out the current status of the Aklatang Emilio Aguinaldo- Information Resource Center Learning Commons (AEA-IRC LC) and to assess user's awareness and utilization of the space, facilities and design through the lens of social utility model. The findings of the study served as reference to enhance the design and lay-out of the AEA-IRC LC and in designing an engaging program of activities that are embedded/aligned in the curriculum or course syllabus. This paper utilized the descriptive type of research using a researcher-made survey questionnaire as data gathering instrument. The respondents are Senior High School and undergraduate students of De La Salle University – Dasmariñas (DLSU-D) who are enrolled during the school year 2017- 2018. The number of respondents was computed using the Sample size calculator with 5% margin of error and 95% confidence level. The gathered data were tabulated, analyzed and interpreted using mean and percentages and Pearson's Correlation Coefficient. In this study, the value of AEA-IRC LC to teaching and learning has been strengthened. And it has been proven that it is not enough to build a space. Its intended purpose must be known to all and its design and facilities must be aligned with the educational needs of those who will use the learning space. This paper affirmed other studies conducted on the learning commons as evolving learning space in campus. The instrument made can be duplicated alongside other methods on measuring the impact and value of the learning commons in teaching, learning and research.

Keywords: learning commons, collaborative space, social utility model, library space, space planning

INTRODUCTION

Libraries are among the most visited and most welcoming learning spaces (Demas, 2005) in the university. These spaces are intended to welcome everyone to engage in both individual study and collaborative activity. As defined by Paton (2014) learning commons (LC) is designed to facilitate learning, to enable students to organize their own learning, to participate in shared learning and to participate in the production of knowledge. Embracing these ideas, the Aklatang Emilio Aguinaldo – Information Resource Center (AEA-IRC) opened the LC to its users during the second semester of SY 2015-2016. The

LC is also an answer to the demand for more learning spaces in the library due to increasing number of users.

The AEA-IRC LC is strategically located at the second floor of the main library building near the printed book collections and the reading area. It occupies an area of 144 sq. m. and can accommodate 180 users at a time. It is a learning area with furniture, air-condition, internet access and a security system. Since the start of its operation, the LC has accommodated an average of 7,756 users every semester and continuously increasing every year. Based on the given statistics, majority of LC users are students.

The LC of the AEA-IRC supports a learner-centered approach of learning commons model which focuses on active and collaborative engagement (Faber, 2012). The user engagement is the main consideration of the space. Also, its design is made to encourage more group work activities.

Webb, et al. (2008) pointed out that if “we want to engage students in library spaces, it is imperative we discard traditional views of library space and furniture” (p.420). In relation to this, the design of the LC is attuned with the current trends in interior design as reflected in the available furniture which invokes encouragement to library patrons. Moreover, the choice of colors for the sofas, bean bags and chairs were made conducive for collaboration among students.

In 2014, Wong mentioned that the “LC was not just another quiet study space in the campus” (in Chang and Wong, 2013, p. 434). The LC’s appearance sends an atmosphere where our millennial users would be more encouraged to come because of the vibrant learning space where they could collaborate ideas with fellow students. The value of LC as facilitator of learning should become an important part of students’ life in the campus, hence, it should respond to users’ needs in a learning space that encourage and promote shared learning.

Library users are utilizing the LC of AEA-IRC as a learning space for various purposes and activities. Since its conception, the LC has been accommodating many library users. In spite of the good intention for creating it as additional learning space, the library has received unfavorable reactions from faculty, alumni and students as to the real purpose of the LC. Thus, this study was conceived.

It aimed to find out the current status of the LC and assessed user’s level of awareness with regard to the LC’s purpose, facilities and design and the level of its utilization. The findings of the study served as reference in creating a program of activities for the improvement on the use of the AEA-IRC Learning Commons for the school year 2018-2019. Likewise, this paper hoped to contribute to AEA-IRC’s research outputs and to the existing studies and literature on the importance of the learning commons as a learning space.

LITERATURE REVIEW

Dr. R.S. Ranganathan once said that library is a growing organism. The library has evolved and continues evolving as technology advances and resources becoming

sophisticated. The change on the role played by the library is synonymous to the transformation on how it has been addressed or named. Today, the library has been called the learning commons which discussed thoroughly in most literature. It may take its root on the constructivist educational philosophy “which asserts that real understanding and knowledge are constructed through personal experience and reflection rather than conveyed passively through a classroom lecture. This decenteredness of the learning space with emphasis on “co-learning and co-construction of knowledge is best exemplified in the Commons 2.0. (Nancy Van Note Chism, in Sinclair, p.4) Commons 2.0 follows the principles of: 1) “openness to cross disciplinary exchange of ideas; 2) freedom which pertains to flexibility and mobility; 3) comfortable to accommodate diverse learners and their learning styles ; 4) inspiring wherein the furnishings, layout, and design should present a uniform and consistent vision of functionality, sophistication and creativity, and practical space where real work and learning takes place” (Sinclair, p. 4-6). Mary Bangert (2017) called it as “dynamic, flexible accessible student-centric space designed to accommodate multiple learning activities and facilitate both quiet, individual study and collaborative conversations” (p.1). More than physical space, the learning commons is a human space where relationships is given high importance as underscored by Lippincot and Greenwell (2011). The learning commons model has also been adopted in the classroom setting with the librarian as co-teaching partner in designing curriculum and instruction (Burruss, Atkins & Burns, 2018).

To become more effective as a learning space, the learning commons first and foremost “must be willing to understand and be responsive to the needs of community of learners” (Sinclair, p.6). This approach is known as user-centered / learning focused library (re)design. Sommerville and Collins (2008) study has proven the efficacy of collaborative design practice or participatory design philosophy when they plan for library learning commons and learning spaces for California Polytechnic State University and San Jose State University in California U.S.A.

Moreover, the impact and value of the learning commons to the academic community should be measure regularly. The best way to do this is through assessment and evaluation (Choy and Goh, 2016; Wong, 2014; UI, 2014-2015; Webb, Schaller, & Hunley, 2008). According to Wong, “evaluation must be an iterative process in order to effectively and continually measure learner behaviors and pedagogic changes” (p. 442). If the library wants to thrive in this digital and virtual age, it should have what the HKUST Library strives for - the “foresight” and ability to bring change in teaching, learning and research (p.442).

CONCEPTUAL FRAMEWORK

This study is guided by the concept of social utility model which defined by McIntyre and Miller (1992, p. 1) “as those benefits of a product or service that satisfy interpersonal needs” and beneficial “to the majority of population of any given society (Gupta, 2018; Sinha, 2015).” Lippincott and Greenwell, (2011) adopted this philosophy in their concept of the modern learning commons which according to them “is a flexible environment built to accommodate multiple learning activities” based on the users’ needs and the

nature of their learning activities. According to them, there are seven questions that must be answered in developing a modern learning commons (p.1-2). These questions are:

- a) What is it?
- b) How does it work?
- c) Who is doing it
- d) Why is it significant?
- e) What are the downsides?
- f) Where is it going?
- g) What are the implications for teaching and learning?

Using these questions as a guide, the researchers developed the following indicators in assessing the user's awareness on the purpose of the LC and how the facilities were being utilized.

- a) Knowledge on the purpose of the space
- b) Suitability of the LC to user's needs
- c) User's engagement on the LC
- d) Implication to teaching and learning

This study is guided by the concept of social utility model which defined by McIntyre and Miller (1992, p. 1) "as those benefits of a product or service that satisfy interpersonal needs" and beneficial "to the majority of population of any given society (Gupta, 2018; Sinha; 2018)." Lippincott and Greenwell, (2011) adopted this philosophy in their concept of the modern learning commons which according to them "is a flexible environment built to accommodate multiple learning activities" based on the users' needs and the nature of their learning activities. According to them, there are seven questions that must be answered in developing a modern learning commons. These questions are:

- a) What is it?
- b) How does it work?
- c) Who's doing it
- d) Why is it significant?
- e) What are the downsides?
- f) Where is it going?
- g) What is the implications for teaching and learning?

Using these questions as a guide, the researchers developed the following indicators in assessing the user's awareness on the purpose of the LC and how the facilities were being utilized.

- a) Knowledge on the purpose of the space
- b) Suitability of the LC to user's needs
- c) User's engagement on the LC
- d) Implication to teaching and learning

PURPOSE OF THE STUDY

Based on the indicators given, the aims of the study are: 1) to determine the awareness on the purpose of the LC; 2) to assess the LC's facilities and design; and 3) to identify

the level of utilization of AEA-IRC LC by the Senior High School and undergraduate students of De La Salle University – Dasmariñas (DLSU-D) SY 2017-2018. It also aimed to utilize the responses of the respondents as a basis to develop a program of activities for the improvement of the use of the AEA-IRC Learning Commons for the school year 2018-2019.

Specifically, it sought to answer the following questions:

1. What is the level of awareness of users of AEA-IRC LC with regard to purpose?
2. How do users assess the AEA-IRC LC with regard to facilities and design?
3. What is the level of utilization of AEA-IRC LC by the users?
4. Is there a significant relationship with the level of awareness and level of utilization of the users of AEA-IRC LC when they are grouped according to:
 - 4.1 College
 - 4.2 Year level
5. Based on the results of the study, what improvements for AEA-IRC LC can be proposed?

RESEARCH DESIGN

This paper used the descriptive survey type of research. A researcher-made survey questionnaire was used as data gathering instrument to determine the level of awareness of the users with regard to the LC's purpose, facilities and design and the level of utilization by the respondents. The questionnaire was divided into four parts: 1.) respondent's profile; 2.) awareness of LC's purpose, facilities and design; 3.) utilization of LC; and 4.) recommendations for improvement. Under awareness of purpose, the researchers identified five LC purpose and the respondents rated their knowledge about the purpose using a Likert scale (1=not aware, 2=aware to a little extent, 3=aware to a moderate extent, 4=aware to a high extent, and 5=fully aware). Under facilities and design, the researchers identified nine (9) items to be rated (1=strongly disagree, 2=disagree, 3= neither agree nor disagree, 4=agree, and 5=strongly agree). Under utilization of LC, fifteen (15) activities were provided to be rated (1=never, 2=rarely, 3=sometimes, 4=often, and 5=always).

In determining the validity of the research instrument, a pilot study was conducted to 45 respondents. To measure the reliability of the test items, the researcher performed Cronbach Alpha test. Result indicated .916 internal consistencies of all items and interpreted as excellent. Mean and percentages and Pearson's Correlation Coefficient were the statistical treatment used in data analysis. As for the sample distribution, a non-probability purposive sampling method was used wherein members of particular group of undergraduate college students and Senior High School students from different levels and tracks, respectively were purposefully chosen to answer the survey questionnaire from the months of November to December 2017. The number of respondents is computed using Raosoft sample size calculator with 5% margin of error and 95% confidence level.

RESULTS

(a) Knowledge on the purpose of the space

According to Schultz of Starbucks there is a need to define the core purpose for being (Williams, 2018). In the case of the Learning Commons, its *raison d'être* must be clearly defined and the library patrons should have knowledge about it. Otherwise, it will defeat its real purpose as “powerful venues to support student learning” and will result to what William Badke called “foundational flaws”. According to Lippincott and Greenwell (2011), in designing or redesigning a commons, there is a need to assess student needs and the nature of their school works to determine the alignment of the space to its intended purpose and function. This view of Lippincott and Greenwell on the importance of conducting assessment to determine the value of the learning commons to its users as basis for its improvement is supported by Wong (2014).

In this study, as disclosed in Table 1, the results revealed that the respondents are highly aware of the purpose of AEA-IRC LC. They were aware that this university facility could serve not only as venue for group learning and non-traditional learning activities of the students but also in developing teamwork and promoting culture of exploration and collaboration among students. Majority of them were cognizant that this space can also be used by individual learner. The LC’s characteristic of providing multiple needs of students was also highlighted in the study conducted by Wong in 2014 as “most loved” by the students of Hong Kong University of Science and Technology.

Table 1: Level of Users’ Awareness of the Purpose of AEA-IRC LC

Awareness of Purpose	Mean	Std. Deviation	Verbal Interpretation
1. serves as venue for group learning	4.16	0.988	Aware to a high extent
2. serves as venue for non-traditional activities of learning	4.12	0.892	Aware to a high extent
3. provides venue in developing teamwork	4.07	0.928	Aware to a high extent
4. promotes culture of exploration and collaboration	3.95	0.931	Aware to a high extent
5. encourages individual learning	3.75	1.018	Aware to a high extent
Overall	4.01	0.9514	Aware to a high extent

(b) Suitability of the LC to user’s needs

To meet the needs of the 21st century students and pedagogies, today’s library should be able to support knowledge economy, collaborative learning and outcomes-based pedagogy (Jones and Grote, 2018). It should serve as a learning-focused place for individuals and teams, and where creative technologies, library resources and educational activities interact and merge seamlessly together. “A revitalized library will be a “preferred destination,” an active participant in supporting knowledge creation—a “want to space for the diverse disciplines it serve” (Jones and Grote, 2018, p. 56). These

features must be considered when planning to (re)design the library which is now called a learning commons. Another basic element that must be included in the design process is the partnership, collaboration, and team integration (Jones and Grote, 2018; Sommerville and Collins, 2008). Studies have shown that user participation in the planning process is essential for the following reasons: 1) to generate baseline data; and 2) encourage engagement among stakeholders. The result would be a user-centered design space suitable to the needs of its intended users.

Table 2 divulged the user’s assessment of AEA-IRC LC that determine the suitability of facilities and design to their needs. The lighting design, comfortable seats, existence of CCTV cameras and well regulated room temperature got the highest mean and described as strongly agree. These results may be interpreted that the respondents are highly satisfied and approved with these features of the facilities of the LC. On the other hand, the *Wi-fi* connection and the number of electrical outlets got the lowest ratings which the researchers believed is associated with the existing bandwidth at the LC and the uneven proportion of available electrical sockets against the number of users. Whereas, the ratings given to design and arrangement of furniture and the flexibility of the space to cater various user’s activities may be attributed to the size of the space, absence of other furniture such as movable type of tables and the overall interior design of the space. These findings was also confirmed in the study of Webb., et al. (2008) which stated that “the type of learning environments that students prefer are spaces that are comfortable, facilitate interpersonal communication, spaces that they can control, and areas that promote the integration of basic human needs and desire along with learning activities” (p.419). Also, these results braced with the idea advocated by Choy & Goh (2016) of the importance of maintaining vibrancy and space variety of the library interior to serve the diverse learning needs of its users.

Table 2: Assessment of AEA-IRC LC’s Facilities and Design

Facilities and Design	Mean	Std. Deviation	Verbal Interpretation
1. has a well-lighted area	4.49	0.687	Strongly Agree
2. has a very comfortable seats	4.39	0.793	Strongly Agree
3. has CCTV for security and safety of the user	4.38	0.763	Strongly Agree
4. has a well regulated room temperature	4.31	0.817	Strongly Agree
5. has wi-fi connection	4.06	0.941	Agree
6. has a well design furniture suited to the users	4.03	0.919	Agree
7. has a well-planned arrangement of furniture	3.88	0.964	Agree
8. has more electrical outlet for user’s gadget	3.65	1.127	Agree
9. has enough space to cater different student activities	3.44	1.107	Neutral
Overall	4.07	0.902	Agree

(c) User’s engagement on the LC

Library users utilized the learning commons for a variety of reasons. Table 3 shows various activities that students are engaged with inside the learning commons. Most of the time, they used the space to access internet using their laptop/mobile phones and to relax during their vacant period. This result implies that most of the respondents preferred LC to engage in these kinds of activities probably because of the accessibility of Wi-fi in the area and of comforting ambiance. This finding is also comparable with the report of University of Iowa Libraries Learning Commons (2015) which affirmed that “the more that students believed they could use their laptops in the Learning Commons and the more they believed they could concentrate, the more satisfied they were with the overall Learning Common”(p.1).

Meanwhile, activities rated “Often” by the respondents include listening to music, socializing with friends, doing assignments, group study, film viewing using personal gadget, individual study, accessing online resources of AEA-IRC and watching movies. The activities wherein the students have least engagement inside the LC include creative writing, playing educational card games and doing drawing/art and tutorial session. It maybe associated again with the overall design of the space, the absence of board/card games for circulation, and lack of drawing table to be used. These user activities were expounded by Banguert (2017) when she said that learning commons demands flexibility in order to meet the evolving needs of students, allowing them to meet, talk, study, create, and use technology and other resources” (p.1).

The forgoing results provide an overview that different simultaneous activities are happening in the LC and each user has his/her own preferred type of activity to engage in. This notion of the “the learning commons as a dynamic, student-centric space designed to accommodate multiple learning activities and facilitate both quiet, individual study and collaborative conversations.” is cited by Banguert (2017, p.1). Wall (2016) also highlighted the need for making the learning spaces versatile and flexible “to support different teaching and learning activities” (p.8).

Table 3: Level of utilization of AEA-IRC Learning Commons by the users

Utilization of AEA-IRC LC	Mean	Std. Deviation	Verbal Interpretation
1. Using laptop/mobile phone	4.32	0.890	Always
2. Relaxing between classes	4.21	0.992	Always
3. Socializing with friends	4.19	0.994	Often
4. Listening to music	4.19	0.994	Often
5. Doing assignments	3.83	0.997	Often
6. Group Study	3.79	1.053	Often
7. Film viewing / using personal gadget	3.78	1.067	Often
8. Individual Study	3.73	1.181	Often
9. Reading for pleasure	3.72	1.158	Often
10. Accessing online resources of AEA-IRC	3.65	1.051	Often
11. Watching movies	3.56	1.339	Often
12. Tutoring session	3.26	1.179	Sometimes

13. Drawing/Art Activity	3.11	1.272	Sometimes
14. Playing educational card games	3.06	1.392	Sometimes
15. Writing literary pieces	3.05	1.238	Sometimes
Overall	3.70	1.119	Often

Relationship between the Level of Awareness and level of Utilization of the users of AEA IRC Learning Commons

In terms of relationship between the level of awareness of purpose and level of utilization of the users of AEA-IRC LC when they are grouped by college, the respondents from the Senior High School Department has the highest mean rating of 4.08 in terms of awareness of purpose and has the highest mean rating of 3.95 in terms of utilization. The computed π is .454 with a p-value of <0.000 described as moderately small positive correlation. This finding means that the two variables are significantly related.

Finding shows that all colleges get the same result wherein the two variables (awareness of purpose and utilization) are significantly related except for COE which has a p-value of .080 (not significant). This could be accounted to having the least number of respondents and also to the same scores of the respondents. The data shows that the users’ awareness of the purpose of LC is significantly related with their utilization of the space. These findings signify that as the level of awareness of purpose increases, the level of utilization also increases and vice versa which is highly evident in the College of Liberal Arts and Communication and College of Tourism and Hospitality Management, respectively. The reason could be their proximity to the library as they are all located in the East side of the campus. This finding corroborated with the study conducted in the University of Iowa Libraries (2018) where majority of students from the College of Liberal Arts and Sciences are the frequent users of the Learning Commons compared with business and engineering students. It also implies that the purpose of LC should be known to all particularly those colleges located in the farthest side of the campus to encourage more students’ collaboration and engagement.

With regards to relationship between the level of awareness of purpose and level of utilization of the users of AEA-IRC LC when they are grouped according to year level, the respondents from the 5th year level has the highest mean rating of 4.30 in terms of awareness of purpose and has the mean rating of 3.78 in terms of utilization. The computed π is .438 with a p-value of <0.037 described as moderately small positive correlation. These findings indicate that the two variables are significantly related. The data reveals that all year level get the same result wherein the two variables (awareness of purpose and utilization) are significantly related except for 2nd year level which has a p-value of .774 very small positive correlation and not significant. Possibly this could be accounted to having the least number of respondents during the survey due to the number of students enrolled as they are affected by the K to 12 transition program. As for the Senior High School, between grade 11 and 12, the grade 12 has highest mean rating of 4.03 in terms of awareness of purpose and has the mean rating of 3.95 in terms of utilization. The computed π is .487 with a p-value of <0.000 described as moderately small positive correlation This result revealed that as students level gets higher their

awareness of purpose and utilization of the LC increases. This result somewhat deviate from the report made by the University of Libraries of IOWA where the majority of the learning commons users are newer students.

(d) Implications to teaching and learning

This study verified the purpose of the LC to its users as noted by Lippincott (2011) who said that “while the name of the facility can be important in conveying its functions to potential users, it is far more important to develop a clear mission for the space and to configure it to support learning” (p.96). As such, the researchers proposed areas for improvement of AEA-IRC LC and a program of activities in support of teaching and learning. The proposed indicators for the improvement of design and facilities and in designing the program are patterned after the Moreillon Model (Loertscher, Koechlin, & Zwaan, 2011). The model stated that “Facilitating a program based on the Learning commons (LC) model is a whole school approach that fosters deep learning for all library stakeholders.” (See Appendices)

CONCLUSION

Findings of the study revealed that though the users of the LC are very much aware of its purpose, utilization is still on the average level. It only means that there still a need to market the AEA-IRC LC to the users wherein its intended purpose will be highlighted and activities which users could engage in are known. With regards to suitability of the LC to user’s needs, it was highly suggested that there is a need to redesign the space based on user’s preferences and educational demand. As for user’s engagement with the space, this study asserted that the LC serves as multipurpose learning space catering to variety of students activities including social engagement.

However, different type of activities being performed by and engaged in by the students and other library users must be considered when redesigning the space. The study also established that the users’ awareness of the purpose of LC is significantly related with their utilization of the space when grouped according to college except for COED and year levels except for second year. This means that as students level gets higher their awareness of purpose and utilization of the LC increases.

Moreover, through this study, the value of AEA-IRC LC to teaching and learning has been strengthened. And it has been proven that it is not enough to build a space. Its intended purpose must be known to all and its design and facilities must be aligned with the educational needs of those who will use the learning space.

Based on these findings, it is recommended that promotion of the space highlighting its intended purpose particularly with the freshman students be improved. Implementation of winning entry in the LC interior design competition must be done considering the results of this study and the written suggestions of the participants such as improvement of furniture, food vendo machine, faster internet connection, and additional electrical sockets. Regular cleaning of the beanbags and sofas must be carried out regularly to maintain cleanliness and sustain the comfortable environment. There should also be regular personnel who will consistently monitor the area and solicit

advice from the LC users. Finally, for full realization of the purpose and maximum utilization of the LC, an annual program of engaging activities embedded in their courses/subjects must be created giving priority to the development of their creative, critical and artistic skills.

It is further recommended that a follow-up research must be conducted after the program has been implemented based on the actual LC users as sample population and utilizing mixed-method research design approach. The aim is to determine the success of the program and to assess the evolving needs of the LC users. Likewise, the library management may consider adopting the learning commons model in transforming the AEA-IRC.

REFERENCES

- Bangert, Mary. 2017. *4 Things to Consider When Going From Library to Learning Commons*. <http://ideas.demco.com/blog/4-things-consider-going-library-learning-commons/>
- Burress, Rene., Charlene Atkins, & Charlene Burns. 2018. Learning Commons as a Catalyst for Instructional Partnerships. *Teacher Librarian*, no. 4 : 28. <http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=edsgao&AN=edsgcl.537982250&site=eds-live&custid=s6273593>
- Chan, Diana L.H., & Gabrielle K.W. Wong. 2013. If you built, they will come: An intra institutional user engagement process in the Learning Commons. *New Library World*, Vol. 114, no.1-2 : 44-53. <http://www.emeraldinsight.com/doi/abs/10.1108/03074801311291956>
- Choy, Fatt Cheong & Su Nee Goh. 2016. A framework for planning academic library spaces. *Library Management*, Vol. 37, no. 1/2 : 13-28. <https://doi.org/10.1108/LM-01-2016-0001><http://dx.doi.org/10.1108/LM-01-2016-0001>
- Demas, Sam. 2014. *From the Ashes of Alexandria: What's Happening in the College Library?* (Rep. No. Pub129). <https://www.clir.org/pubs/reports/pub129/demas.html>
- Faber, Cathy. 2012. *Library to learning commons: implementation guide*. Calgary Board of Education. https://cesdlibraryvisioning.wikispaces.com/file/view/Library_Learning_Commons_Implementation_Guide.pdf
- Gupta, Pranay. 2018. "What is social utility?" (blog). *In Quora*. <https://www.quora.com/What-is-social-utility>.
- Jones, Derek. & Andrew Grote. 2018. The library as learning commons. *Planning for Higher Education*, Vol. 46, no 3 : 56-64. <http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=edsgao&AN=edsgcl.549223922&site=eds-live&custid=s6273593>
- Lippincott, Joan and Stacey Greenwell. 2011. 7 things you should know about the modern learning commons. In *ELI 7 Things You Should Know Series*. <https://net.educause.edu/ir/library/pdf/ELI7071.pdf>.

- Lippincott, Joan K. 2006. Linking the information commons to learning. In *Learning spaces* : 88-105. Educause.
doi:<https://www.scribd.com/document/127217924/Arh-Oblinger-Diana-Learning-Spaces-EDUCAUSE-2006>
- McIntyre, Shelby H. & Christopher Miller. 1992. Social utility and fashion behavior. *Marketing Letters Vol. 3, no. 4* : 371-382. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=edsgao&AN=edsgcl.549223922&site=eds-live&custid=s6273593>
- Paton, Barbara & Belinda Moore. 2014. From Hub to Beacon: Evolution and Evaluation of Spaces in the Learning Commons. In *Proceedings of the IATUL Conferences*. <http://docs.lib.purdue.edu/iatul/2014/librarianspace/>
- Sinclair, Bryan. 2007. Commons 2.0: library spaces design for collaborative learning. In *Educause Quarterly*, no. 4: 4-6.
<https://www.educause.edu/ir/library/pdf/EQM0740.pdf>
- Sinha, Rahul. 2015. What is social utility? In *Quora*.
<https://www.quora.com/What-is-social-utility>.
- Sommerville, Mary and Lydia Collins. 2007. Collaborative design: a learner-centered library planning approach. *The Electronic Library*, Vol. 26 no. 6: 803-820.
<http://www.emeraldinsight.com/doi/10.1108/02640470810921592>
- Wall, Gabrielle. 2016. The impact of physical design on student outcomes. New Zealand: Ministry of Education.
<https://www.education.govt.nz>
- Webb, Kathleen M., Molly Schaller & Sawyer Hunley. 2008. Measuring library space use and preferences: charting a path toward increased engagement. *Portal: Libraries and the Academy*, Vol. 8 no. 4: 407-422.
http://ecommons.udayton.edu/roesch_fac/3
- Williams, Oliver F. 2018. Restorying the purpose of business: The agenda of the UN Global Compact. *African Journal of Business Ethics*, Vol. 12 no. 2: 85-95.
<https://doi.org/10.15249/12-2-195>
- Wong, Gabrielle Ka Wai. 2014. Using strategic assessment to demonstrate impact : a case study at the HKUST learning commons. *Library Management*, Vol. 35 no. 6-7: 433-443.
<http://www.emeraldinsight.com/doi/10.1108/LM-10-2013-0100>
- The University of Iowa Libraries. 2015. *Learning Commons Report*.
<http://www.lib.uio>