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What attracts students towards Informal Social Learning Spaces? A Case Study of Business School in Sri Lanka

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Abstract

It has been found that a considerable portion of students' learning happens outside of formal spaces (Marsick & Watkins, 2001). Given the modern nature of learning in higher education, the development of purpose-built informal social learning spaces as a strategy to enhance the student experience, has become more prevalent, although empirical research is scant. Despite the unwavering popularity of learning spaces across the higher education sector, a key driver should be that, learning spaces to be updated, novel and be expanded to assure relevancy of them for learners, and those decision making must be evidence based. Therefore, this area of learning space studies requires further research work. The objective of the study is to examine, what attracts students towards purpose-built informal social learning spaces in a Business School in Sri Lanka. A qualitative case study approach is adopted in the study. The data are gathered through focus group discussions held at three different purpose-built informal social learning spaces at the selected Business School and thematic analysis is used. In this exploration, the thoughts, feelings, emotions and judgments of students are brought into discussion. The findings disclosed that students are attracted towards social learning spaces because of both physical environmental characteristics (comfort, functionality, layout and availability of workspaces) and psychological attributes of those spaces (privacy, concentration, social interaction and the ability to personally make

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the choice). Lack of empirical research in this area would provide little evidence for higher education institutions to focus their attention and invest the resources for designing and building informal SLS as to facilitate improved learning experience for students. This study contributes empirical insight into an under-researched area and implications for administrators in higher education institutions.

Key words

Students; Informal social learning spaces; Business school; Physical environmental characteristics; Psychological attributes

Introduction

With the increased competition in the global education sector, especially in management education, Business Schools are inclined to assume a customer-service provider relationship with their students (Molesworth, Nixon, & Scullion, 2009). Consequently, the applicants, as potential consumers are seen to be largely interested in an unchallenging, practical, and value-for-money educational experience explicitly aimed at providing better opportunities for first employment (Jandric and Loretto, 2017). In considering the concerns over increased reliance on market-based mechanisms, this study will pave the way to all Business Schools, signaling an urgent need to rethink about possible issues with creating of proper mission, graduate attributes, structures, programs, governance and leadership etc. As a result, those aspects can help the faculty, students, and other stakeholders to focus on the tasks that are related with higher returns of expected student outcomes.

While the study of learning spaces in higher education had not been appealing for researchers up until recently; the work of higher education has considered as taking place unrestrained of the spaces in which it's located (Temple, 2008). In learning space studies, accumulating research is found on how to develop formal teaching spaces that are more interactive. Formal learning is referred as that occurs in the designated classrooms, while informal learning occurs outside designated classes and lectures (Joint Information Systems Committee, 2006). This study will focus on 'informal' social learning spaces (SLS) which act as a medium in which the academic and social aspects of university life of a student coexist (Matthews, Andrews, & Adams, 2011; Morieson, Murray, Wilson, Clarke, & Lukas, 2018). Though there had been few

recent studies on this area in global context, surprisingly such evidence in Sri Lankan higher education context is hard to find in literature.

Although, Bennett (2007) emphasized the importance of designing SLS to enhance the student learning experience, mostly have noted the difficulties to evaluate the effectiveness (Radcliffe, Wilson, Powell, & Tibbetts, 2008), as there are number of variables such as teacher style, learning techniques, method of delivery, etc that affect the effectiveness of learning spaces (Jankowska & Atlay, 2008). Therefore, the objective of the study is to examine, what attracts students towards purpose-built informal social learning spaces in a Business School in Sri Lanka.

In an age where management education had witnessed a meteoric expansion globally, the results of study will be useful to come up with mechanisms in conducting evaluations of learning spaces, in order to assess learning benefits, and financial and other costs associated in aiding the investment decisions and space designing.

Literature review

Today, universities are defined far beyond based on its physical boundaries, but based on the student experience it delivers (Keppell & Riddle, 2012). Judson (2006) has differentiated the concept of 'space and place' and describes space as 'physical spatial attributes and dimensions', place as 'spaces that are meaningful to individuals and to which they have a sense of belonging'. Learning spaces not only range from the formal physical and virtual spaces utilized by staff and students, but it expands to informal physical and virtual spaces as well (Keppell & Riddle, 2012).

Social Learning Spaces (SLS)

According to Kolb and Kolb (2005)'s argument, learning is often situated inside community which has a history, norms, and traditions of practice to which novice members are socialized through mentorship. As learning is considered to be a social activity, the space designers should consider in creating physical SLS which are welcoming and encouraging to meet, to talk and to work as small groups (Temple, 2008). As suggested by Strange and Banning (2001) learning can be supported by making students available with spaces that are socially catalytic just to hangout, and like a third place to neither live nor work while exploring new relationships and strengthening existing ones.

Morieson et al. (2018) indicated that rapidly evolving technological environment, had paved the way for more online learning options with myriad social networking sites to help students in extending the informal curriculum outside the formal classroom. The affordances offered by the internet have shown a shift from learning management systems to SLS. Although decentralization and networking were the original characteristics of the internet, they have soon become features of the social systems as well. As Kreijns, Kirschner, Jochems, and Van Buuren (2004) argued, social spaces facilitate as a human network which underlies ideas of social constructivist practice, collaborative learning and engaged learning itself. However in the current study, the physical informal SLS are concerned as those are purposely- built (Matthews et al., 2011) in order to enhance the student learning experience at the selected Business School.

Purpose-built informal SLS

At times, learning was considered as a solitary activity, where collaboration was recognized as a way of cheating (Bennett, 2007). Today, studying is seen to be a collaborative communal activity where a fruitful mix of learning and socializing is present. According to Ken A. Graetz (2006), the physical characteristics of learning spaces affect students emotionally, with cognitive and behavioral consequences, yet vary based on individuals. Brown (2001), specified that, universities have an obligation to address the real questions and sensibilities of them especially, by expanding their access to communities apart from the content of courses.

As elaborated by Parsons (2018) in his study, the students had learnt the norms, rules, and rituals of their future professions as a result of participating in informal SLS. Students had shown persistent sense of community which resulted a higher academic performance with self-empowerment (Kuh, 2001). Hence, Oblinger (2006) and Fisher and Newton (2014) also suggested a reconceptualization of informal SLS centered on student learning experiences of this nature.

It was evident in literature that, research on informal SLS deserves further attention, as it is been limited up to this point. Though the development of purpose-built informal SLS is widely recognized as a strategy to enhance the student experience, still the empirical research in this area is lacking (Matthews et al., 2011). Therefore, the implications of purpose built informal SLS on

student learning experience, is been set as the scope of this research and will be explored with a qualitative research design.

Experiential learning theory

This theory was drawn by 20th century scholars such as John Dewey, Carl Jung, Carl Rogers , Kurt Lewin, Paulo Freire, Jean Piaget, William James and others, who gave experience a prominent role in their main theories of human learning and development (Kolb & Kolb, 2005). According to experiential learning theory, individuals learn by responding to a varied set of demands, which can either be environmental and personal (Kolb & Kolb, 2005). Therefore, learning was defined as an interaction between two interdependent knowledge dimensions: acquisition and transformation where in both, it is required to resolve a set of competing learning tensions. In acquisition, the individuals must resolve the tension between apprehension (concrete experience) and comprehension (abstract conceptualization) (Kolb & Kolb, 2005).

In literature, another theoretical framework which supports the experiential learning theory was found by Kolb and Kolb (2005) and it had widely used when analyzing social system factors that influence learning experience of learning spaces. An American psychologist Bronfenbrenner (1977) had made a significant sociological contribution on Lewin's concept of life space where he defined the ecology of learning space as a topologically built structural arrangement in which a course or classroom, is termed as the microsystem, while other setups in student's life such as family are termed as the mesosystem. On the other hand, ecosystem encloses both formal and informal social structures (such as policies, procedures and the university culture) that influence immediate environment of a student. Lastly, the macrosystem is about institutional values of the culture which favors the abstract knowledge rather than practical knowledge and make an influence on the microsystem and mesosystem of person.

As cited in Kolb and Kolb (2005), ‘experiential learning space’ in experiential learning theory can be defined by the two pillars of two dimensional map of learning space; action/reflection and experiencing/ conceptualizing. In that case, the learning style of a student will stand among these dimensions depending on the combination of individual disposition and the characteristics of the learning environment (Kolb & Kolb, 2005) as was explained by the concept of life space.

Situated learning theory

This is another key contribution to the concept of learning space which emerged based on Vygotsky (1978)'s activity theory of social cognition (Lave & Wenger, 1991). Similar to the experiential learning theory, in this theory also, the social knowledge is envisaged as a deal between the person and the social environment.

According to Lave and Wenger (1991), situations mentioned in the theory are not essentially physical places but the constructs of individual experiences in the social environment, that are embedded in communities which has a history, norms, tools, and traditions. Therefore, knowledge is said to be residing inside communities of practice instead on heads of people. Thus, learning is possible to be acquired through participation in a community. Situated learning theory further emphasizes that learning spaces should not be limited to the teacher and classroom, but it should extend towards broader community via socialization, where aspects like; membership, identity formation, mentorship, replacement of newcomers to old-timers (Kolb & Kolb, 2005) play major roles.

Empirical findings

Harrop and Turpin (2013) carried out a study at Sheffield Hallam University, introducing a typology with nine attributes which make students prefer SLS, under the aspects of learning theory, placemaking and architecture. This typology is useful when making decisions about evaluating and redeveloping existing informal SLS. Those nine learning space preference attributes are; destination (Hunley & Schaller, 2009), identity, conversations (Foster & Gibbons, 2007; Hunley & Schaller, 2009; Kolb & Kolb, 2005), community, retreat (O'Connor, 2005), timely (Foster & Gibbons, 2007), human factors, resources and refreshment (O'Connor, 2005). As proven by Brooks (2010), the innovative features of the informal SLS, such as round tables were given high preference, as students believed that those features support collaborative and student-centered learning (University of Minnesota Active Learning Classrooms Pilot Evaluation Team, 2008).

Kiddle (2011), when he asked students and teachers, what is important for them in relation to a SLS, answers were pointed on to reasonably rudimentary requirements such as; Safety (Llewelyn Davis, 2000), Accessibility (Yeang, 2006), Temperature and Air Quality (Alexander, 1977; Lomonaco & Miller,

1997; Moffat & Schiller, 1981; Yeang, 2006), Acoustics (Karatasou, Santamouris, & Geros, 2013; Nelson, Soli, & Seltz, 2002) , Natural Light (Graetz & Goliber, 2002) and Adequacy of Space/ Social Density (Graetz & Goliber, 2002). In Matthews et al. (2011)'s study, students had mentioned the 'noise' as a main reason for not using the SLS as it creates disappointment on students who preferred individual study. Importantly, another reason indicated by non-users was overcrowded nature of the space.

The seven-variable framework developed by Appel-Meulenbroek, Groenen, and Janssen (2011) have been adapted by many researchers in defining learning space preference attributes in higher education, though it was originally developed to recognize the variables which influence the choice of workspaces at office environment. As cited in Beckers, van der Voordt, and Dewulf (2016), the framework included two main categories; three psychological needs and four physical environment characteristics. The psychological needs included the preferred level of privacy and concentration, social interaction and communication, the need to personally control the space choice. Characteristics of the physical environment consisted; functional characteristics related to equipment, technology and furniture, comfort characteristics such as light, color and finishing, layout characteristics like ideal location of the space and its spatial position towards other spaces and lastly availability of spaces when required.

According to Jamieson, Fisher, Gilding, Taylor, and Trevitt (2000), seven guiding principles of space designing are; design space for multiple use concurrently and consecutively, design to maximize the inherent flexibility within each space, design to make use of the vertical dimension of facilities, design to integrate previously discrete campus functions, design features and functions to maximize teacher and student control, design to maximize the alignment of different curricular activities and design to maximize student access to and use/ownership of the learning environment.

According to Oblinger (2005), learning space designs should consider some set of features to develop them aligned with a learner centered approach. In summary, those features explain that learning spaces should be designed around people, supporting to multiple learning activities. Further, they should enable connections, and accommodate IT inside and out. Lastly, learning spaces should be safe and their functionality should reflect upon the institutional values.

Context

The choice of the selected Business School is not accidental but anchored on its uniqueness among the other institutes in the higher education sector in Sri Lanka. According to Fonseka (2017), the institute which the selected Business School belongs to, is noticeable in the history of higher education in Sri Lanka and is a mammoth educational milestone of recent age. This state-of the-art institute of higher education, serves business, computing and engineering fields with a wide spectrum of degree programs, locally as well as partnered with reputed international universities across the globe. The institution conceptualized and constructed with the essence of world class universities of the Anglo-American model, has the capacity to accommodate more than 30,000 students on campus (Fonseka, 2017). Currently, amongst the three study schools, the 'Business School' holds the largest student population closer to 6000, upholding its pioneering spirit throughout the journey in delivering business education, hence selected as the context of this study. The school provides a variety of tailored spaces (Matthews et al., 2009) where students of Business School can gather, collaborate, study and socialize outside scheduled classes.

Two main underlying themes that the learning spaces purposely-built (Matthews et al., 2011, Matthews et al., 2009a) are, to have 'creative informal learning spaces' with 'the harmony with the environment' (Fonseka, 2017). According to Fonseka (2017) spaces that are barrier-free can liberate and inspire the imagination and creativity of students, which is a pre-requisite for effective teaching, learning and research in business education. Though increased attention has been given in purpose-built informal learning spaces at the Business School, there has not been any evaluation method to determine what attributes of them really attract students towards them.

Among the multiple spaces outside scheduled classes that students gather, collaborate, study, and socialize, the following three spaces are identified and selected for the study as they are purpose-built (Matthews et al., 2011, Matthews et al., 2009b) for informal social learning at the Business School. Brief description on each follow.

Student Centre (SC): The student center is purpose-built informal SLS to promote the networking, social activities, life skill development and even private study of students. It has large and obstructed spaces to provide a massive

informal study area with a flexible arrangement of furniture. The SC also has a career guidance office, an audio-visual room, a bookshop, club offices that promote extracurricular activities and cubicles for self-study as well as telephone booths.

Interactive learning area in library building (ILA): The library has a purpose-built interactive learning area which does not essentially mean to provide an anti-social, silent space, but a social space which invites conversation, catalyzes social interaction among students, promote impromptu conversations and serendipitous meetings, which contribute to personal and professional growth. It is an open library area which is flexibly furnished and well-resourced with shareable digital technology.

Open informal study area (OISA): This is a purpose-built open learning space located at the center of the Business School surrounded with natural beauty. It is purpose-built to encourage informal contact and collaboration among business students. It is designed to facilitate both individual, group and social work so that students are enabled to work productively in between classes, through the provision of large and comfortable group working tables and plethora of IT enabled facilities.

Methodology

A qualitative research is a social enquiry that emphasizes a complex, holistic, systematic examination of different experiences in social and natural spaces (Rallis and Rossman, 2003). Hence, this is a qualitative study which employed the case study method for examining students' learning experiences on purpose-built informal SLS in its natural setting (Denzin and Lincoln, 2008). A case study is an empirical study that investigates a contemporary phenomenon in depth and with its real-life context (Yin, 2009). The study used primary data and data were collected through focus group discussions (Creswell & Creswell, 2017). Focus group discussion is a technique that employs in-depth group interviews in which participants are selected purposively of a specific population, and the group is focused' on a given topic (Rabiee, 2004). The method is important in exploring attitudes, knowledge and experiences of people and it can be used to understand what, why and how people think in a particular way (Kitzinger, 1995). Participants were selected on criteria that they have something to express on the area, have indifferent socio-characteristics and

be comfortable talking with the interviewer and each other (Thomas, MacMillan, McColl, Hale, & Bond, 1995). For the data collection, the researcher 'intentionally selected' (Creswell & Creswell, 2017) the first-second year students in the Business School as the site. The intention of targeting on them was that they are been full-time at the university and should have gained considerable learning experiences on purpose-built informal SLS to contribute this study in a significant way. In gathering data, six focus group discussions (FGD) were conducted (two at the SC, consisting with 4 participants each, two at ILA consisting with 4 participants each and two at OISA consisting with 5 participants each). Each focus group interview lasted 30- 40 minutes. A brief information about the participants of the focus group discussion is given in Table 1.

Table 1: A summary of participants

Purpose-built Informal SLS	Focus Group Discussion No.	Participant Number	Gender	Age	Year of study	Residence (On/Off campus)	Engaged in sports	Member of clubs and societies	Following professional courses	Most preferred informal SLS
SC	FGD 1	P 1	F	18-20	1st year	On campus	Y	N	N	SC
		P 2	F	18-20	1st year	Off campus	N	Y	Y	SC
		P 3	M	18-20	1st year	Off campus	N	Y	N	ILA
		P 4	M	18-20	1st year	Off campus	Y	Y	N	SC
	FGD 2	P 1	M	18-20	1st year	Off campus	N	Y	N	SC
		P 2	F	21-	1st year	On campus	Y	Y	Y	ILA

				23						
				21-	2nd	Off				
		P 3	M	23	year	campus	N	Y	Y	ILA
				18-		Off				
		P 4	M	20	1st year	campus	Y	Y	Y	SC
				21-						
		P 1	F	23	1st year	On campus	Y	Y	Y	ILA
				21-						
		P 2	M	23	1st year	On campus	Y	Y	N	ILA
				18-		Off				
		P 3	F	20	1st year	campus	Y	Y	N	SC
	FGD 3			24-	2nd	Off				
		P 4	M	26	year	campus	Y	Y	N	ILA
				21-		Off				
		P 1	F	23	1st year	campus	N	N	N	SC
				18-		Off				
		P 2	F	20	1st year	campus	N	Y	N	ILA
				21-		Off				
		P 3	F	23	1st year	campus	N	N	N	ILA
				21-						
ILA	FGD 4	P 4	M	23	1st year	On campus	Y	Y	Y	ILA
				21-						OIS
		P 1	F	23	1st year	On campus	Y	Y	N	A
				21-	2nd	Off				OIS
		P 2	F	23	year	campus	Y	Y	Y	A
				21-	2nd	Off				OIS
		P 3	F	23	year	campus	N	Y	Y	A
				21-	2nd	Off				OIS
		P 4	F	23	year	campus	N	Y	N	A
	FGD 5			21-	2nd	Off				OIS
OISA		P 5	F	23	year	campus	N	Y	Y	A
	D	P 1	M	18-	2nd	Off	Y	Y	N	ILA

		20	year	campus				
		18-	2nd	Off				
P 2	F	20	year	campus	Y	Y	N	ILA
		21-	2nd	Off				
P 3	M	23	year	campus	N	Y	N	ILA
		18-	2nd	Off				
P 4	F	20	year	campus	Y	Y	N	ILA
		18-	2nd	Off				
P 5	F	20	year	campus	N	Y	N	ILA

*SC: Student Centre *ILA: Interactive Learning Area in library building *OISA: Open Informal Study Area *P: Participant *F: Female *M: Male

Trustworthiness determines whether the findings of the study are accurate from the standpoint of the researcher, the participant, or the readers of an account and is considered one of the strengths of qualitative research (Creswell & Miller, 2000). In qualitative literature terms that address trustworthiness, such as validity, authenticity, and credibility are abound (Creswell & Miller, 2000). Qualitative research in general considers the researcher's background to be both pivotal and influential in the study (Smith, 2004). In this study, the researcher was clear with the research objectives, as it was to fully rely on the participants' views on their learning experiences on purpose built informal SLS. The more open-ended discussion was used as the researcher carefully moderated the discussions. Yet, the researcher used own backgrounds in shaping the interpretation flowing from personal, cultural, and historical experiences.

The data generated was analyzed using top-down or theoretical thematic analysis, where the researcher followed six-phase guide provided by Braun and Clarke (2006) which is a useful framework for conducting this kind of analysis.

Findings

When the students were asked what attracts them towards informal SLS and the responses given were able to categorize under two main themes as: Physical environmental characteristics and Psychological attributes. Physical environmental characteristics are referred as, the overall design and layout and furnishings of a given learning space that purposely built to maximize the learning opportunities and the engagement of every student. Psychological attributes covered the cognitive environment, which means the information and

skills to be learnt, and the emotional environment, which includes emotions and motivation that supports learnings.

Physical environmental characteristics

The physical characteristics of learning spaces play a significant role in their effectiveness and, by influencing student learning, on society. As Winston Churchill once stated: "we shape our buildings and afterwards our buildings shape us".

The physical environmental characteristics generally include variables such as; size, shape, location, environmental and technological appropriateness for its users and for the intended activity and numerous others. Based on the findings of the study, four main characteristics of the physical environment were recognized. Namely; comfort characteristics that provide the learners with a state of physical ease and freedom from constraints, functional characteristics related to equipment, furniture and technology, layout characteristics consist of the location of the SLS and its spatial position towards other learning spaces and lastly, the variables concerning the availability of workspaces.

Comfort characteristics

Students illustrated, comfort features provide them with a state of mental ease and freedom from learning constraints. Thermal comfort of learning spaces was identified as an important characteristic for student comfort in learning. This was facilitated by the Business School considering careful air movement via open windows with solar exposure.

Appropriate level of ventilation with fresh air was recognized as another feature of informal SLS yet critical to student's health, comfort, and cognitive functions, all in fact mandatory for effective learning processes.

Natural light was another comfort characteristic that was provided in all the informal propose-built informal SLS through windows, doors, and skylights. Providing natural light was shown to be highly simulative in the learning spaces. When natural lighting is properly controlled and located, it can have a measurable positive impact on student learning behavior. If not, it can impair the ability to read, view materials, or may cause physical discomfort.

In addition to above, eating facilities, location with natural beauty have helped to create a welcoming, calm and free atmosphere in those spaces. As

elaborated by them, these comforts provided by the environment gives them a relaxed mind and the ability to focus more while studying.

One student expressed that ILA is one of her favorite places in the university because of mind soothing view it creates. As she remarked:

> *"For me, this place is one of the spaces in the university which my mind got easily attached, the natural beauty soothes my mind to a great extent"* (FGD4: P1)

The finishes of ceilings, walls and floors were identified as some other comfort features that have considerable impact on the effectiveness of informal SLS and a determinant of the long-term usefulness of the space including student's health. Cleanliness is also identified as a factor in attracting students towards purpose-built informal SLS as it aids a healthy environment, mainly for young students in net generation who are fond of having a more physical contact with floor and wall surfaces than earlier generations.

Functional characteristics

Functional characteristics of a learning space make sure that the space is designed to be practical and useful in facilitating its intended special activity, purpose, or task. Students identified the physical features of the purpose-built informal SLS's such as the comfortable furniture that is configured with ergonomics, technology like facility to plug laptops had anchored them to come to these spaces. These indicate that a variety of features that contribute to the effectiveness of informal SLS. They explained furniture with padded seats and padded chairs, with backs gives more comfort to them and big tables are more attractive. As students perceived, those features have created them a good atmosphere to learn.

> *"We have so much of space to sit as a group, as in 6 people can sit in one table, also every table has charging facilities"* (FGD5:P3)

Students in net generation have greater access to personal technology in their learning. Hence with easy internet access, the usage of e-books and other digital content has moved beyond the actual research, generation, collaboration and publishing. Therefore, students appreciated the ample available power points and reliable wireless connection hence they alluded these special designs have created social centers for students where they can do anything they want.

"This area has very good Wi-Fi access to work; last time to practice SPSS sessions we chose this place mainly because of that reason" (FGD6: P1)

It was evident that mobile and personal technology is transforming the way learning spaces were used and configured as it allowed advanced learning activities including researching, collaboration, creating, and presentation to occur anywhere. Mobile devices have allowed easier communication among the students. Therefore, this has fostered personalization of learning spaces, supporting the learning activities directly as well as indirectly through providing a greater feeling of ownership and relevancy.

Layout characteristics

The location of a learning space affects both its functional and operational interrelationships with other spaces, learning programs, student and instructor cohorts, and support spaces. Students were attracted to OISA especially because of the location of learning space and its spatial position towards other learning spaces. They preferred the location as it was close vicinity to lecture halls and program office. So that they could shift in between spaces without much waste of time.

"I prefer this space over the Student Center as it's closer to the lecture halls". (FGD5: P2)

Also, they mentioned that the location was situated in a way that had easy access to water filter, easy access to canteen hence it is very convenient for them.

Moreover, they imparted how the spatial design of the OISA has contributed to their behaviors, both academic and social in various ways. It shows that how the space is designed to be the center of the whole faculty building so that students can have an ideal view on the things happening around. One student commented:

"It is like the center of the whole building, when we go to the balcony, we can see everything, we can see when the lecturer enters the lecture halls, the view is ideal" (FGD5: P3)

Further, one student expressed how the spatial position and the layout of ILA had created a lifetime memory for him. So that he had a feeling of place attachment towards ILA. As he expressed:

> *"This is where I took my first panorama photograph, I was able to capture a beautiful picture with a good view of the pond and the surrounding buildings"* (FGD3: P4)

The view of nature helps in improving mental health and well-being and in turn stimulating learning and retention. Even the ophthalmologists have stressed the importance of distant views to help relax the eye engaged in close work. Further, the views of natural scenes have the potential to restore a person's ability to focus and concentrate after strong cognitive activity.

The availability of workspaces

The availability of necessary workspaces that matches with student requirements was identified as massive positive. At ILA the students were very happy as they have the access to all learning material in a very close proximity, so it is easy for them to engage in learning without much hesitation. As one student commented:

> *"…. if any data was required, we wouldn't have to run around as almost everything we'd need would be right here. We'd be able to finish our task quickly because of this space"* (FGD3: P2)

Yet, students expressed their despondency towards ILA, having said that most of the time ILA is not open for students unless significant number of students come and request the management to open it. Therefore, the space is not available for the usage when they really want to use it. This concern had made them reluctant to use the ILA space frequently. As they say:

> *"Unless there are many students come and request, management keeps the space closed' when students request only library management opens it"* (FGD4: P1)

The availability of the space when required is a noteworthy feature as, when they feel that they have to undergo unnecessary procedure to request permission to use the space, students felt that they should refrain themselves using the space.

> *"It's not really that crowded, the thing is it's closed almost each and every time I decide to use it, I guess they only open it when the other levels of the building are crowded"* (FGD4: P2)

Furthermore, the students commented on the bestowed different zones of the same space, the 'open areas' where students are more likely to socialize and eat and the 'more closed' areas with the booths that cater to group work. Those comments agree with the observational data, where this behavior was recorded numerous times. The availability of so-called open areas at SC and OISA have resulted in attracting more students towards them when compared to ILA.

As one student made a comparison in between the three purpose-built informal SLS and commented about SC:

> *"If we go to library area it has some restrictions, as in we can't speak loudly, and in the interactive area of library building the heavy wind sometimes distracts us, but this space is so well suited in our study work"* (FGD6: P2)

They tend to prefer OISA, over ILA and SC as it had so many features to attract them towards to OISA.

Psychological attributes

Psychological attributes were constructed on the bases of student's personal thinking and ideologies of what they like and dislike. These ideologies may create feelings and attitudes among the individuals, and it affects in determining the choice of using purpose-built informal SLS. The negative attitudes may slow down the speed of learning while positive attitudes will speed up the learning process. There were concerns on features of informal SLS that addresses four psychological needs which made the students get attracted towards SLS. They are preferred level of concentration, preferred level of privacy, preferred social interaction and ability to personally make the choice of space.

Preferred level of concentration

The students identified their ability to concentrate in a given space as an important characteristic that attracts them towards purpose-built informal SLS. They mentioned that through a learning space they intend to hold the attention to the right thing at the right time in taking all the information that is needed to complete tasks and in engaging in the task through to the end.

Students have recognized that the SC and OISA were designed to be social spaces and with that inevitably comes noise, which is associated with

interaction makes difficulty in concentration. However, the role of noise in facilitating study in a 'learning center' seemed contradictory to some students. The noise levels resulted in 'difficulty to get anything done' in terms of concentration on study, although students realized that some people prefer to study with noise and that they 'thrive on distraction at the same time some preferred calm and quiet environment. As one student raised:

> *"There are some people who like when they are more exposed to the nature looking at them they can learn better by socializing, at the same time there are some people who can get more when they are learning in a library or a closed place, we are happy because we have both at our campus"* (FGD6: P3)

Students expressed that unlike SC and OISA, ILA support them in high concentration and it helps them in the memorization process, and to go through a lesson in a more relaxed way and to be more confident.

Preferred level of privacy

One student when trying to define what a perfect learning environment is, he described the fact that having a space to make noise means that 'students can feel free to be themselves' in a more unrestricted environment. As indicated by her:

> *"Good learning space, should be effortless to use, one can go quickly, won't take time to arrange things/ seating, less stressful, certain aspect of freedom, no lecturer's intervention, we can be ourselves"* (FGD1: P2)

As the statements below illustrates, most students did not want administrative staff restrictions in the spaces as they felt that their presence would disrupt the informal, social dynamism of this space:

> *"The management always monitor us through cameras and restrict us on so many things. ...I think that is due to previous acts of indecency in this space"* (FGD3: P1)

And the students expressed that, they seem to feel so controlled by the authorities when they are in ILA and they tend not to use it quite frequently because of this reason. As the researcher observed, in comparison to other purpose-built informal SLS, ILA had very few numbers as students were reluctant to use it because of the strict way of handing them by authorities.

> *"One time when I visited the premises, the library management decided to switch off the elevators. And when I asked why, they responded by saying that I am a boy and I need to be active and made me take the stairs, 4 floors up. When we face situations like this, we don't feel like using the place anymore"* (FGD3: P4)

In contrast, SC and OISA had offered them with their expected level of privacy so that students were attracted to SC and OISA most of the time.

Preferred social interaction

Social interaction inevitably plays an important role in learning as it is proven to be effective when learner organizes the thoughts, reflect on their understanding, and find gaps in their reasoning. Students believed that, by providing spaces to socialize and relax, they are given a platform to form friendships and to extend their social networks with other students in their batch as well as students across different years in different degree programs. The below statement convinces the above about SC.

> *"It's a common space to everyone in all faculties so we can meet friends of other faculties"* (FGD1: P1)

The students indicated that these purpose-built informal SLS offer them a good opportunity to develop their social connections. And it keeps them active in the university life.

> *"Helps us to improve our networking, it teaches us to work as a team, also helps us in getting to know seniors and to network"* (FGD2: P2)

Ability to personally make the choice of space

Students believed that the ability to personally make their choice of space is another psychological feature which makes an informal SLS a better one. Some students revealed that they do not have a specific time of the day to come, but mostly the time depends on how the lectures are scheduled in the day. Also, some of them seem to use these spaces to wait to meet their friends early in the morning before adjourning to lectures.

> *"On days with lectures decision is to use this space in the morning, on days without lectures either in the evening or throughout the day"* (FGD3: P3)

Further students expressed that, during exam season of the year and when the assignment submission deadlines are closer usage of these three spaces are high and they seem to be overly crowded.

They also revealed that when making the choice of spaces, the freedom; being free from restrictions motivates them to come to the SC on regular basis to engage in their study purposes.

> *"In the recreation center you have freedom but can't work efficiently, if someone wants to work while having a good time with friends this is the best place, because no one bothers, no restrictions, we can do anything"* (FGD2: P4)

However, students commented that some restrictions they experience when using these spaces direct them to detach from taking the choice to use these purpose-built informal SLS. As an example, there is a rule established for the university that, no student is permitted to stay at the premises after 5pm in the evening in all those spaces, so students have to vacate all the common spaces by 5pm in the evening. Students expressed and demanded to propose the authorities to extend this time at least until 6.30pm in the evening because their lectures even finish at 5pm, hence there is not enough time to gather around.

Further, study revealed that, especially at ILA, it is not permitted to access for drinking water at the premises. Also, it does not allow any student to enter on Saturday Sundays, not allowing students to take any bags, stationary items to the building and limiting communication only in a low voice. These rules were divulged as rigid regulations which students were not happy about and it seem to hinder the choice of going to ILA for studies. Per contra, they mentioned separate study rooms are available for students to request, and those study rooms are free from above mentioned restrictions.

Discussion

The importance of interaction between people and the environment was recognized long ago by Kurt Lewin's field theory and life space concept, Bronfenbrenner (1977) concept of microsystem, situated learning theory given by Jean Lave and Etienne Wenger, and many others. Many researchers continuously showed that informal SLS are purposely constructed to support

more active and effective learning while encouraging different methods of instruction.

The findings convinced that, students are attracted to the informal SLS because of both physical environmental characteristics such as; comfort, layout, functionality, availability and also psychological attributes that the space covers such as; concentration, privacy, social interaction and ability to make the choice of space. Kolb and Kolb (2005) had elaborated the concept of learning space that was built on Kurt Lewin's field theory; suggested that behavior of students is termed as a function of environment and the person. Upholding the Kolb's idea that learning is a transaction between a person and the social environment, the researcher's categorization of attributes that attract students towards purpose-built informal SLS was built. The 'physical environmental characteristics' ratified Kolb's 'environment' element, and 'psychological attributes' represented Kolb's 'person' element which he elaborated in field theory as determinants of someone's behavior.

This classification was similar to the framework of seven variables developed by Appel-Meulenbroek, Groenen, and Janssen (2011) to identify the factors that influence the workspace choices of office workers that fit the working activities and personal preferences of them. Hence, to study the students' learning space choices, Beckers et al. (2016) had applied the same, as both are human decision-making processes influenced by psychological needs and non-psychological variables. As most of the variables of this workspace framework are been elaborated in, higher education studies, researcher re-arranged it to framework with eight variables considering the suitability of context.

In summary, findings of the study confirmed the suggestions of Peker and Ataöv (2019), that people learn better in more challenging, safer, comfortable, social and enriched learning environments which further fulfills the attributes explained by Harrop and Turpin (2013). The five design facilities that Oblinger (2005) mentioned for a more focused and learner centered approach were present in all the three purpose-built informal SLS in the case.

As was found in Kiddle (2011), Accessibility (Yeang, 2006), Temperature and Air Quality (Alexander, 1977; Lomonaco & Miller, 1997; Moffat & Schiller, 1981; Yeang, 2006), Acoustics (Karatasou et al., 2013; Nelson et al.,

2002) , Natural Light (Graetz & Goliber, 2002), Adequacy of Space/ Social Density (Graetz & Goliber, 2002) was confirmed to be very well arranged within the spatial design of all the three selected SLS. Also, the absence of such adequate physical environment characteristics may lead to the distraction of the accomplishment of intended learning goals. Additionally, cleanliness, reliable wireless connections and having the facility to plug laptops were identified as important physical environmental characteristics. Further, easy accessibility to necessary resources was recognized as another important element.

Apart from above, as mentioned by the participants the natural air and the greenery has helped them to sooth their minds while working hence has become a major physical environmental feature. Various researchers like Wurtman, 1975, Marcus & Francis, 1998, Earthman, 2004, Heschong Mahone Group, 2003, Oblinger, 2005, Acker & Miller, 2005, Brown & Long, 2006 and Harrop & Turpin, 2013 had emphasized on 'the presence of natural element' with greenery and fresh air, as a compulsory element in purpose-built informal SLS. Recent studies at Harvard University and Syracuse University had reported significant cognitive impairment from impurities in the air. Yet, as convinced by Harrop and Turpin (2013), it was realized that physical environment characteristics are weak in aligning with learning theories, because generally, the longevity of physical buildings are far greater than the evolution of learning theories and the type of learning that the learner wishes to obtain.

Students were attracted to these spaces as they provide students with the opportunity to relax and socialize. Additionally, those spaces create them the opportunity to form new friendships and strengthen existing ones while extending their social networks further. Similarly, Harrop and Turpin (2013) showed that students are attracted to informal SLS should fulfil their behavioral needs such as interaction, conversation, community and the need for retreat.

According to the findings of the study, most of the students mentioned that the ability to make noise without restrictions make them feel more comfortable and less stressful. Agreeing to that, Matthews et al. (2011) had showed that students are fond of SLS especially because those spaces allow them to talk, make noise, eat and socialize. Per contra, in some cases the noise level had been a problem for the minority students who preferred concentration when engaging in studying. It was also to the agreement of Matthews et al. (2011)'s study.

Among the seven guiding principles that Jamieson et al. (2000) introduced, 'maximization of student access to and use/ownership of the learning environment' was in question as the findings revealed that all these purpose-built informal SLS on campus are prohibited for students use after 5.00 pm as a university wide regulation. In addition to that, the students expressed the overly control held by security officers when they are using these spaces make them to reduce their preferred level of privacy. Privacy was another important psychological attribute which was mentioned by Beckers et al. (2016). Students believed that the presence of administrative staff in continuously monitoring their behavior through cameras (yet only at ILA) disrupts the informal, social dynamism of the space.

Students viewed the freedom, and absence of rigid controls, easy accessibility to cafeteria and the ability to eat at the given space as bonuses. In addition to that, the study found instances where the students were not permitted to enter the learning space by the management unless a significant number of students requested for that. The feature of 'the need to personally control their own choices of space' is identified by Beckers et al. (2016), seem to be impacted negatively henceforth. This issue was only raised regarding ILA but other two spaces (SC and OISA) was available to them without any such incident. Due to that reason most of the students had showed reluctance to use ILA though they identified it as one of the favorite places for their studies.

Conclusion, Limitations and Future research

The study offers an in-depth exploration of what attracts students towards purpose-built informal social learning spaces in a Business School in Sri Lanka. The characteristics of physical environment of the informal SLS; comfort, functionality, layout and availability of workspaces play a major role in attracting students towards purpose-built informal SLS. Further, the psychological attributes of informal SLS related to student's cognition such as preference for privacy and concentration, social interaction and the ability to personally make the choice of using the SLS are other attributes that attract student towards an informal SLS. Lack of empirical research in this area would provide little evidence for higher education institutions to focus their attention and invest the resources for designing and building informal SLS as to facilitate improved learning experience for students. This study contributes empirical

insight into an under-researched area and implications for administrators in higher education institutions.

This study sample was only limited to students in the Business School. But the selected three purpose-built informal SLS are free to be used by students of other schools as well. For example, the SC and ILA are common to students of other schools. Hence, another avenue for further research would be to conduct a study extending the sample covering students of all other schools to reveal interesting insights on students learning experiences.

Notwithstanding the complexities associated with qualitative study, the emerged concerns cannot be generalized to the whole population or other faculties or other universities. Though the emerged concerns show a link between student experience and their eventual achievement they cannot be used to ascertain the causal relationships between the two. Hence, a study using the quantitative research design will provide more generalizable outcomes, perhaps would ascertain causal relationship between informal SLS and student learning outcomes.

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