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Informal Setting for Learning on Campus: Usage and preference

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Abstract

A good campus environment could promote positive learning attitude and enhance a student learning ability to prepare students for university challenges and beyond. This paper describes a research performed using a questionnaire that aimed at establishing students' learning activities and space use on campus ground outside classroom hours. A total of 225 students from four groups of academic enrollment participated in the survey. The data was statistically analysed to reveal aspects of informal learning spaces usage and preferences according to space type and characteristics. The paper concludes with deliberation on key findings and their connection to existing theory, and recommendations.

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Keyword: Informal setting for learning; preference; space use

1. Introduction

A good campus environment could contribute towards improved learning outcomes that better prepare students for university challenges and beyond. The body of literature deliberating on aspects of quality learning spaces is substantial. Studies have established theoretical framework and design criteria for a good learning environment (Radcliffe, Wilson, Powell, & Tibbetts, 2008). Nevertheless the subject

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remains topical due to the dynamism of the variables, namely the pedagogy, the learning media, the spaces, learners themselves and the study location.

In Malaysia, the Student Centred Learning (SCL) pedagogy is gaining acceptance at universities. Amongst the positive aspects of SCL are its reliance on active learning, emphasis on achieving deep learning, focus towards increased students' responsibility and accountability, as well as developing a sense of autonomy in the students (O'Neill & McMahon, 2005). Efforts to embrace SCL pose the question of suitability of the current physical learning setting and hence (Ibrahim, Fadzil, & Saruwono, 2013), the need to reevaluate existing conditions towards preparation of informal learning spaces as loci for learning. SCL also implies that a significant amount of a student's learning time is likely to be spent outside-classroom, managing their self-directed learning activities. As suggested by Brown and Long (2006), if unconfined by scheduled classroom spaces and hours, the whole campus is potentially an effective learning space. The design of current and future campuses will largely be determined by the university's response to the in-classroom as well as outside-classroom learning needs. In this paper, the term informal learning environment refers to the physical environment that includes physical elements, features and spaces that support self-directed learning activities undertaken by students outside their classroom period.

In a previous paper, the authors argued that the empirical research on occupied informal setting for learning is currently lacking, and presented the result of an inventory based research that assessed the physical environment characteristics of a case study situated within a public university setting in Malaysia (Ibrahim, Fadzil, & Saruwono, 2013). This current paper presents an extension of the investigation that adopted a quantitative approach to investigate usage and performance of informal learning setting on-campus ground. On-campus ground is defined as the physical setting that accommodates the instructional learning - namely the classrooms, lecture hall and laboratories, as well as the supporting spaces in its vicinity that includes the library, common rooms, cafeteria, lounge and transitional, in-between spaces.

2. Literature review

In the past, the design of university campuses primarily were aimed at accommodating formal teaching activities, translated in the form of lecture halls, classrooms and laboratories. Approaches to learning in educational settings are changing. Barr and Tagg (1995) said that the role of today's and future education is moving from 'a place of instruction' to 'a place to produce learning'. The move to embrace technology embedded learning tools is also affecting change in the learning environment at universities.

A good university setting is essential to facilitate cognitive and social development of students (Johnson & Lomas, 2005). Learning environment is not limited to the physical environment alone but includes virtual environment. In fact, emphasis has lately shifted towards development of blended learning environment in terms of infrastructure, technology, and techniques.

According to Warger, EduServe, and Dobbin (2009) learning environment encompasses learning resources and technology, means of teaching, modes of learning, and connections to societal and global contexts. The concept of the learning environment thus includes human behavioural, cultural and psychological dimensions. In other words, learning environment is a combination of the physical setting and learning enablers, as well as the students and lecturers that use the space in their education endeavor.

A well designed physical environment could result in students feeling valued and attached (Malcolm Brown, 2005). In turn, such positive emotions could result and improve students' learning ability (Oblinger, 2006). Favourable conditions for learning have been suggested by many researchers (Boddington & Boys, 2011; Leather & Marinho, 2009; Martin, 2010; State of Victoria, 2011; Woolner, 2010).

Wolff (2003) investigated physical learning environment through mapping of the learning processes for 21st-century challenges, to the physical learning environment that enhances the potential of achieving higher knowledge and skills. Wolff's research offers understanding on what are the desired features of the physical environment that support active, collaborative and project based learning.

Based on literature review and expert opinion, a research by Bosch (2003) identified physical factors that educational outcomes, categorized as, i) functionality, ii) sociability, iii) comfort, health and safety, iv) aesthetics and appearance and v) resources. In Malaysia, a recent research conducted on a case study examined informal learning spaces in particular. The study identified essential aspects of the physical environment that need to be present to effectively enable informal learning on the campus ground (Ibrahim et al., 2013).

Quality learning environment should go beyond functional needs, so as to fulfill current generation's appetite for individuality and sense of identity. Students demand creative and innovative space conditions possibly through the introduction of design elements that are different from the standards. According to Fisher (2005b) there are three distinct clusters of learning possibilities which are instructional learning, practice based learning and informal learning or self-directed. In a university, the instructional learning and informal learning need to be accommodated and clustered well together to create a good, effective learning environment.

The importance of ensuring good integration between building and outdoors spaces on campus has been highlighted by Shamsuddin et al. (2007). The authors concur to the idea that integration could encourage good social interaction and intellectual culture on campus ground. Their study on proposes several guiding rules for a strategic planning of an existing campus. Introduction of new and additional building blocks need to aim towards contributing towards enhancement of the pockets of open spaces surrounding the campus. Site consideration of new building should not be isolated from existing development. The design of new buildings should focus on creating a space for outdoor activity in addition to strengthening and enhancing existing spaces and routes. In terms of campus space, the open space such as courtyard (internal spaces) should be designed as a place to pleasure work in and not as the excess space. Between building spaces are crucial as they can serve as a space of interaction and informal learning that celebrate further the campus community. Plaza or square is a crucial element that can serve as a focal point and a gathering place on campus.

The good characteristics of self-directed learner can be found in the literature. The following summarizes the general aspects of self-directed learners as identified in the literature (Brockett & Hiemstra, 1991; Gibbons, 2003; Knowles, 1975):

- *Independence.* Self-directed learners are fully responsible people who can independently execute their own learning activities.
- *Self-management.* Self-directed learners can identify what they need during the learning process, set individualized learning goals, control their own time and effort for learning, and arrange feedbacks for their work.
- *Desire for learning.* For the purpose of knowledge acquisition, self-directed learners' motivations for learning are extremely strong.
- *Problem-solving.* In order to achieve the best learning outcomes, self-directed learners make use of existing learning resources and feasible learning strategies to overcome the difficulties which occur in the learning process

According to Fisher (2005a) informal learning spaces should be designed as a cluster, that offer various categories of settings, namely the 'breakout spaces', outdoor learning space, group learning space, and individual pod. This will enhance learning processes and stimulates engagement. He further suggests forms of informal learning spaces that include workstations, café, resources, lounge or reading area and

learning support helpdesk. In order to increase its use, the cluster of informal learning spaces is to be appropriately located to address each other, and sited within the vicinity of classrooms.

Results from previous studies indicate that learning on campus fosters positive attitudes (Acker & Miller, 2005; Malcolm Brown, 2005). This could be due to the non-restricting and sense of freedom to interact with colleagues, and to search for needed materials that the informal environment could offer.

Empirical research on the subject of physical learning space in Malaysia is lacking, and discussion on informal setting for learning is even fewer hence, the need for the current research.

3. Research method

The study adopted a single case study approach, of a setting within a public university in Malaysia. The setting is located within the vicinity of four main academic blocks, the university's main library and cafeteria. The academic blocks comprise a tower building and three middle-rise buildings that accommodate close to 4900 fulltime students.

A field survey was initiated to identify informal learning cluster within the compound of the case study university setting. The informal learning cluster was identified to include a common study room, the library, the cafeteria, and pockets of partially enclosed learning spaces / transitional spaces. The characteristics of the spaces are described below:

- **Common study room:** This is an open plan study room located between the students' centre and the library. The room has loose chairs and tables, arranged in a group of four to eight. Half of the perimeter walls are glazed, viewing into the corridor and outdoor seating. This room is appropriate for small group size between 2-6 people, allowing students to perform basic learning activities, ranging from passive to medium level discussion.
- **Library – individual or group learning space (enclosed space):** This is the University's main library. The seating provided in the library allows for individual learning to a small group discussion. The seating provisions are more diverse compared to those in the common study room.
- **Cafeteria – individual or group learning (enclosed and open space):** The cafeteria area offers indoor and outdoor pockets that permit loud and interactive activities. The space tends to cause frequent episodes of discomfort. The outdoor seating area appears to be a favourite spot where students tend to engage in longer leisurely conversation among peers.
- **Pockets of partially enclosed learning space:** These are pockets of partially enclosed spaces that are frequently used by students. The open plaza is a common space that is a favourite spot for socializing and interaction. Students appear to be conducting their learning activities even in outdoor spaces, as long as there are seats located in shaded spaces.

The questionnaire was structured in three parts to capture: the respondents' general profile (Part A) learning setting preference and usage (Part B), assessment on the physical conditions of learning spaces using learning environment performance criteria (Part C). Respondents were asked to respond on how frequent they use on-campus spaces for learning outside classroom hours by choosing either very often, often, seldom or never. They were then asked to assess the physical conditions using 5 point likert scale (range from very satisfied to least satisfied). Open ended questions were also included to capture feedback on salient issues such as identification of spaces and learning preferences not included in the questionnaire. The survey was fully administered, performed in-situ to ensure clarity in gaining the feedback. The survey collected 225 responses fairly distributed between male and female (93 and 132 respectively).

4. Analysis and findings

4.1. Preference and frequency of use

As shown in Table 1, the mean scores for the usage frequency of the respective informal spaces were tabulated. The scores ranged from a high of 2.83 ($SD = .811$) for the cafeteria to a low of 2.09 for outdoor pockets in between faculty's building ($SD = .900$). The second and third most frequently used informal spaces were library common areas ($M = 2.21$, $SD = .846$), and designated study room ($M = 2.16$, $SD = .799$).

The analysis of the textual responses to the open-ended item in this section of the survey yielded additional information on the location of the in-between building spaces used for learning activities. Students indicated that they often study at spots where there are access to plug points, seats and steps along the walkways and the covered open plaza.

Table 1. Ranking of most frequently used spaces

Informal space on campus ground	n	M	SD
Cafeteria	225	2.83	0.811
Library common areas (PTAR1)	225	2.21	0.846
Designated study room	225	2.16	0.799
Open spaces and in-between building	225	2.09	0.900

Note. Rating scale: 1= Never use, 4= Most often use

4.2. Learning activities

As shown in Table 2, the mean scores for the frequency with which students often perform learning activity at informal spaces outside classroom ranged from a high of 2.66 ($SD = .846$) for individual study to a low of 2.38 for team discussion ($SD = .879$). The second, third and fourth most frequently learning activity perform informal spaces were study in group ($M = 2.58$, $SD = .781$), small group discussion ($M = 2.49$, $SD = .907$) and doing assignment and project ($M = 2.38$, $SD = .710$). The analysis of the textual responses to the open-ended item in this section of the survey yielded specific frequently performed learning activities at informal spaces. The activities identified were doing computer assisted learning, networking and socialising.

Table 2. Ranking of learning activities performed

Learning activities at SCL spaces	N	M	SD
Individual learning	225	2.66	0.846
Study in a group	225	2.58	0.781
Group discussion (2-4)	225	2.49	0.907
Doing assignment or project	225	2.38	0.710
Team discussion (5 or more)	225	2.38	0.879

Note. Rating scale: 1= Never perform ,4= Very often.

5. Discussion

Students appreciate settings that offer opportunity for them not only to perform their learning tasks, but also for them to interact, discuss and share with colleagues. Students engage in diverse types of learning activities, with equal needs to be alone as well as to be in groups / teams. They consider socializing and interaction through social media as essential parts of their learning experience in the university.

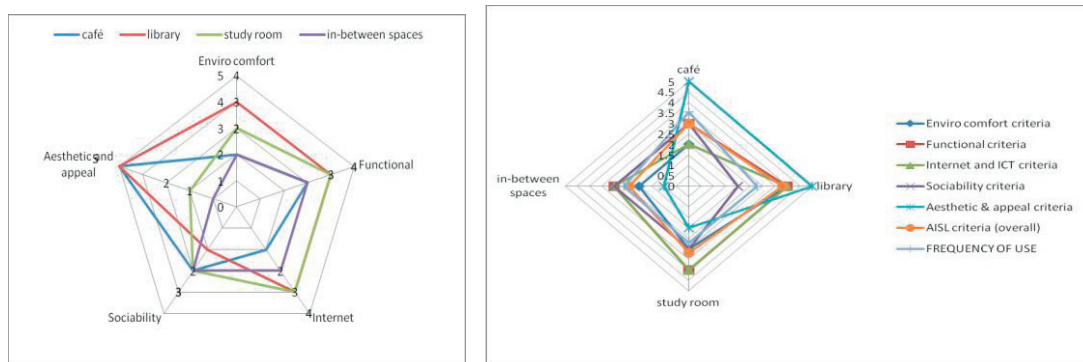


Fig. 1. (a) Performance of each space according to the Physical Learning Environment Criteria, (b) Comparison of performance rating and frequency of use

The analysis concludes that the performance of the informal learning setting for this case study was rated moderate. Figure 1 (a) illustrates the rating according to each of the AISL criteria. On the overall the library received the best rating (mean = 3.8), followed by the study room (mean=3.2), cafeteria (mean=3) and in between spaces (mean=2.4).

Figure 1 (b) illustrates how performance rating for each criteria correspond to the frequency of space use. It can be seen that frequency of use is influenced by the combined AISL criteria.

The analysis suggests that the frequency of use of the four informal learning settings is dependent on all the performances criteria especially the environmental comfort, functional and internet ICT accessibility.

6. Conclusion

On-campus setting for informal learning is an important subject to examine due to its potential to stimulate better engagement amongst the university community. The research was initiated with an interest to improve the physical condition of informal learning settings in Malaysia to be parallel with the government initiated student centred learning objectives. The study highlights the urgency of improving

informal setting for learning in a public university in particular. University planners, architects and designers are now more conscious on the need to develop a variety of university campus environment that support different patterns of personalized as well as collaborative self-directed learning needs. This study contributes to shed some light to inform learning space designers.

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