

CHANGING LANDSCAPES OF LEARNING ENVIRONMENTS IN JAPANESE UNIVERSITIES

Prospect Environment-behavioral Studies of Informal and Formal Learning Spaces

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■ ABSTRACT:

The learning environments in Japanese universities are inevitably changing. Such a change includes both formal and informal learning spaces. Qualitative methods were used to study several learning commons spaces in Japanese universities and two Problem Based Learning (PBL) courses in Mie University. The results showed that a learning commons needs to cater for the emerging needs of a new generation of multitasked users. Traditional classrooms are outdated and inappropriate to conduct PBL. Effective new learning spaces needs to be innovative, flexible, collaborative and IT Enriched.

■ INTRODUCTION:

Learning environments in Japanese universities are changing, as a part of a worldwide trend that is influenced by multiple reasons. Universities need to change to maintain their pivotal leading role. Dober (2003) points out that a university as a complex should support the educational and recreational life of its diverse users, and that place making is essential to create effective campus designs. The change is caused by the evolving needs of users, adopting new learning pedagogy and Information Technology (IT) introduction into all aspects of life. The campus environment as a reflection of the outside community is becoming a more technology dependent environment; the life styles of this generation of students- referred to as the Net-generation- seems to be focused around technology related activities to a great extent; their learning styles are showing more diversification. Faculty is heavily depending on technology to conduct their lectures and share resources with students. Sinclair (2007) claims that understanding the new generation of users and their needs pave the way to create better new learning environments.

Furthermore, new teaching methodologies are emerging that are student centered such as Problem Based Learning (PBL). Boud and Feletti (1997) define PBL as learning initiated by a posed problem. Students need to work together and develop new skills to solve problems and gain knowledge. Saven-Baden (2003) stresses that PBL prepares students to be independent inquirers. These methodologies imply that learning would happen in collaborative and conversational environments, yet learning is a product of sharing knowledge or creating it in an inspiring productive environment. Barkley, Cross and Major

(2005) define collaboration as the work done by two or more students, who work together and share the work load equitably as they progress toward intended learning.

Strange and Banning (2001) recommend educational environments to support formal and informal learning to succeed. Formal learning carried out in classrooms and laboratories is important to gain basic information- know what-, yet knowledge- know how- is gained by informal learning that can happen anywhere; in common places, learning commons in libraries and similar facilities. Cross (2007) elaborates that informal learning is effective because it is personal, while formal learning is imposed by someone else.

■ RESEARCH PURPOSE AND METHODOLOGY:

The main objective of this research is two folds; first it focuses on studying the use of the emerging learning commons in libraries in campus within the frame work of campus facility management. Second it would try to provide better understanding of the collaborative behaviors of students in PBL classrooms in light of their learning styles.

As a methodology the research is more qualitative in nature making use of the techniques of visual documentation, observation, behavioral mapping and video recording. Behavioral mapping was used in learning commons studies while video recording was used in PBL classroom studies to collect data.

This research findings can impact campus planning and design and facility management by providing solid recommendations to design and operate better campus facilities that provide for both of the formal and informal learning. Within this paper, learning commons case studies are used to demonstrate informal learning, while problem based learning classroom research represents the formal learning part.

■ MANIFESTATIONS OF CHANGE:

Changes of the learning environment are occurring steadily, yet such changes are more prominent in the informal learning spaces than those that are affecting the formal learning spaces. On one hand, the introduction of new learning commons into many Japanese universities recently, is the clearest demonstration of change. Beagle (2008) defines the learning commons as a new model of service delivery in academic

libraries which builds on the traditional library service models and integrates information technology besides learning initiatives in cooperation with other campus units to create a one-stop-shopping concept. Lippincott (2010) points out that the learning commons seem to be popular among the new generation of users mostly referred to as the Net-generation; such facilities afford for the new users learning preferences who prefer to work in groups, use technology extensively and tend to mix academic and social lives. While on the other hand, the design of classrooms in particular is still unchanged in deep contrast to the sweeping change of learning pedagogy. Sommer (2007) points out that in spite of recent developments in learning pedagogies, learners continue to use outdated spaces optimized for lecturing. Bell, Greene, Fisher and Baum (2001) suggest that there is a growing need to create new classroom designs with inspiring furniture configurations to free students of traditional barriers and enable them to embrace innovative thinking, problem solving skills and collaborative behaviors.

■ MAJOR FINDINGS:

The learning commons research case studies included studying Nagoya University learning commons, Osaka University main library learning commons and Mie University learning commons. Here, some of Nagoya University learning commons findings will be discussed (Fig 1). The results showed that the group study area and writing support area had more collaboration between users who were engaged in learning activities. The users showed multitasking in their activity profiles, even single users in the individual study area simultaneously used PCs, books and papers (Fig 2). Leaving a table for short breaks was a common practice. Collaboration between users was influenced by many of the space design aspects. For example, table layouts that provided appropriate levels of proximity, continuous eye lines and dynamic configurations were successful.



Fig 1. Nagoya University Learning Commons

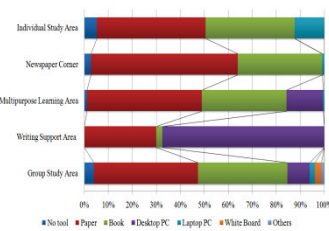


Fig 2. Tools Usage by Area in The Learning Commons

The PBL class studies included studying two courses conducted for the first year students of architecture. Some findings from the 4-skills startup seminar study will be discussed (Fig 3). The results showed that there was a misfit

between PBL which is an innovative pedagogy that encourages group work and collaboration and outdated classrooms that restrict interactions and stress the faculty as the single source of knowledge by means of lecturing, while students listen passively.

Effective collaboration behaviors were observed, such behaviors took place when all group members participated equally in learning activities. Communication between group members is essential for healthy collaboration activities (Fig 4).



Fig 3. 4-Skills Startup Seminar PBL Class

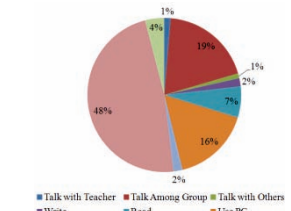


Fig 4. Cumulative Students' Activity Duration

■ CONCLUSION:

A learning commons should provide a relaxed environment that combines openness, flexibility, and IT resources with learning initiatives. The users should feel that they are welcomed to study, use PCs, read and/or even hangout. Such freedom leads to feelings of comfort and promote innovation.

A PBL Classroom should be designed to be flexible allowing smooth transition between lecture mode, group discussions as well as group work, in addition to providing conversational configurations with enough space and movement spines.

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