Chapter 5

Balancing Context, Pedagogy and Technology on Learning Space Designs:
Opportunities Amidst Infrastructural Developments in Hong Kong

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ABSTRACT

This chapter explores the changing needs for university learning spaces and the resultant designs to maximize opportunities for student learning, taking into account the special needs and learning culture of the local context and the changing curriculum needs of all higher education institutions in Hong Kong. The chapter outlines a study of these needs and an institution's plans to better use space to support both flexible and interactive learning environments to enhance active student learning.

INTRODUCTION

The concept of learning spaces in the higher education context has attracted much attention and discussion in recent years as a range of physical environments has been identified as affording different student opportunities to learn (e.g. Bransford, Brown, & Cocking, 2000; Brown, 2005). As Brown and Lippincott (2003) note, understanding where teaching and learning takes place is both "expanding and evolving" (p. 14). The concept is expanding because learning spaces are no longer restricted to predominantly traditional teaching venues (e.g. classrooms)

and formal self-study places (e.g. the library). At the same time, what constitutes good designs of learning spaces is changing, in part influenced by technology developments as well as research into student learning and changing space requirements for both teaching and learning.

LEARNING ACTIVITIES AND STUDENT PROFILES

The learner-centred paradigm of teaching and learning (e.g. Laurillard, 2002; Biggs, 2003) highlights the importance of students actively engaging in the manipulation and construction of knowledge. This view de-emphasizes the role of teacher-led activities and increases the importance of providing opportunities for students to work with each other. This learner-centred paradigm identifies learning as a social constructivist process (Vygotsky, 1978; Collins, Brown & Newman, 1989) as students co-construct knowledge through communicating their own interpretations of concepts and ideas. In planning a major expansion of teaching and learning facilities, different types of learning spaces were investigated that would best afford this more active and interactive learning process (Brawn, 2006). Van Note Chism (2006) questioned typical assumptions of traditional education, including:

- Learning only happens in classrooms
- Learning only happens at fixed times
- Learning is an individual activity
- What happens in classrooms is pretty much the same from class-to-class and day-to-day
- A classroom always has a front
- Learning demands privacy and the removal of distractions

Higher education students are juvenile: they destroy or steal expensive furnishings; they need to be confined to tablet arm chairs to feel like students; and they are all small, young, nimble, and without disabilities (p. 2.3).

However, increasing numbers of studies argue that higher education practices are far removed from the above stereotype understandings. For example, Bransford, Brown and Cocking (2000)'s extensive collated study of educational research states that students greatly benefit from physical environments that encourage group interaction. Goldschmid and Goldschmid (1976) emphasize the benefits accrued when students spend increased time with their peers and work collaboratively. Simsek and Hooper (1992) state that students are able to develop more complex examples and explanations related to set contexts when they work with their peers. In addition Poole (2008) argues that much of this deep collaborative learning takes place outside formal learning venues and spaces should be created on campus to facilitate this learning.

Students need places where they can work collaboratively, on their own, in quiet and noisy areas and in multiple settings. These learning spaces can be broadly categorized as formal and informal learning spaces. Formal learning spaces are normally managed and staffed by service units in a university. The 'learning commons' housed in or associated with the library and the 'living-learning spaces' that facilitate learning in student halls of residences as described by Van Note Chism (2006) are good examples of these formal learning spaces. But there is also a growing need for more 'informal' and 'seriously cool' places (Dittoe, 2006) such as suitably furnished discussion areas that can be the open spaces outside classrooms, or comfortable gathering places with sofas and with the provision of food and drink facilities or increased seating in Starbucks-style café settings, to encourage lengthened group discussions.

Learning spaces can also be virtual as well as physical. According to Oblinger (2006), the need to consider virtual learning spaces is the result of changes in student habits and study practices and the advances and ubiquity of technologies,

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