Chapter 8
Work-Integrated Learning in Postgraduate Design Research:
Regional Collaboration between the Chinese Mainland and Hong Kong

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ABSTRACT

Instead of only staying in the university to carry out research, postgraduate research students nowadays are expected to gain knowledge and experience through work-integrated learning. The advantages of this kind of learning include better support and facilities for research and more comprehensive and in-depth experience in the research area. The learning also provides an opportunity for students to gain other research experience and explore other research interests. However, sometimes such kind of learning opportunity is not available or not the best available locally, therefore work-integrated learning is necessary or better to be carried out in remote regions. Taking regional collaboration of work-integrated learning for postgraduate design research students between the Chinese mainland and Hong Kong as a case study, this chapter discusses the advantages, merits, issues, and problems of regional collaboration. The chapter then identifies possibilities for improvement and directions for further investigation.

INTRODUCTION

Conventionally, postgraduate research students stay in the university only to carry out their research and then finalise their theses. In recent years, this learning practice and requirement has changed. Applied research in collaboration with industry has become more recognised in postgraduate research studies, in particular in subjects such as design, engineering, and technology (Etzkowitz, 1999; Leung, 2004; Smith, 1999; Reynolds, 1997). Students are also expected and required to have a

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wider exposure to the areas related to their research topics (Bourner, Katz & Watson, 2000; Siu, 2009a, 2010). All these changes in research direction and new educational goals imply that more research students are expected and required to carry out their research outside the university and have a tighter connection with industry (Dadashzadeh, Saber & Saber, 2002; Geenhuizen, 2009; Hyland, 1998; Leung, 2004; Poppins & Singh, 2005; Siu, 2009b).

There are two common modes and arrangements for research learning outside the university. First, a research student may stay in a particular place outside the university (that is, including another university where the student is not studying) to carry out research work for a long period of time. Most of the time, this kind of learning is directly related to the students' research topics. Sometimes the attachment is carried out for nearly the whole period of study. The major reason for this arrangement most of the time is due to the particular environment, facility, supervision, or data available outside the home university (Assiter, 1995; Hyland, 1998; Siu, 2009b). For example, a software engineering research student may stay in a software engineering company for most of his or her study period to develop a new computer language as the expensive hardware and confidential data are only available in this particular company. A science research student may stay in a geographical science lab at the North Pole to collect specimens and carry out analysis as particular expert advice is only available in that lab and specific data are only available at that particular site. Alternatively, a student may stay in a particular place in order to gain research experience which is expected to benefit the student's study (Hodgson, 1993; Poppins & Singh, 2005; Siu, 2009b). The places for this kind of work-integrated learning experience may be companies related to research students' research topics, or research labs outside the university. This kind of experience may not be a specific requirement or element of the students' research topics, but may be useful for enriching the experience of the students by widening their vision, perspective, and experience in the research topics, which will then benefit their future career. In general, such learning activities are carried out for a relatively short period of time. For example, a design research student interested in studying the urban redevelopment of a city can benefit from working in a planning and design company for several weeks or months to understand the professional practice and concerns of planners and designers. An architectural engineering research student may need to stay in a deprived rural community for a short period of time to understand the relationship between nature, the built environment, and human daily life.

The latter mode has become more popular and has gained more attention from educators because the aim of postgraduate research today is about not only the production of a thesis at the final stage, but also about the process of gaining both knowledge and wider experience to enable research students to become more well-rounded experts in their discipline. It also implies that a wider learning experience for research students is expected. However, constraints and difficulties are always encountered in the arrangement of this mode of learning. One of the key constraints and difficulties is the provision of this kind of learning experience fitting the needs and preferences of students, in particular many of the students' research directions and topics are quite specific and focused, therefore places for providing suitable work-integrated learning activities are sometimes not available in the local industry or community. For example, since the late 1980s, the manufacturing industry has been phased out in Hong Kong. Most of the design firms and manufacturing facilities have moved their main offices to the Chinese mainland. Design research students often find it difficult to gain work-integrated experience (that is, practice based experience) in their studies. At the beginning, this change in the economic situation had less influence on research students compared to the undergraduate students.