Problems and Possibilities to Enhance Non-Local Work-Integrated Learning Experience for Postgraduate Design Research

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ABSTRACT

In recent years, postgraduate research students have been more expected to gain knowledge and experience through work-integrated learning. The key advantages of work-integrated learning include non-conventional university support and facility for research. Students can also gain alternative and other in-depth and comprehensive experience in the research area. This off-campus learning also provides opportunities for students to explore other research interests. On the other hand, work-integrated learning has its deficiencies and limitations. Since the learning is conducted outside the university, it is difficult to make arrangement and be available, in particular most of the time not the best available locally. Therefore, work-integrated learning is sometimes necessary to be carried out in remote regions. This situation creates more barriers and unpredictable matters for planning, implementation and management of the learning. To review the needs of work-integrated learning, this paper takes a collaboration of work-integrated learning for postgraduate design research students between the Chinese mainland and Hong Kong as a case study. The paper then identifies some key issues and problems. After that, the paper identifies and discusses possibilities for improvement and directions for further investigation.

Keywords: Design Education, Design Research, Off-Campus Learning, Postgraduate Design Research, Work-Integrated Learning

1. INTRODUCTION

Postgraduate research is important for new knowledge contribution. While the government and the industry have put more resources in postgraduate research in recent years, postgraduate research has become more popular and more students have been more willing to stay in the university to continue their research. In postgraduate research, students most of the time are required to stay in the university to carry out research and then generate achievements.
findings and outputs. While students have been more considered not hiding themselves in ivory towers, this kind of conventional (campus-based) learning practice and requirement has changed. Collaborative research with industry has become more recognised in postgraduate research studies, in particular in application related subjects such as design, engineering, and technology (Etzkowitz, 1999; Leung, 2004; Poppinis & Singh, 2005; Potter, 2006; Reynolds, 1997; Siu, 2011; Smith, 1999). Moreover, students are expected to have more off-campus exposure to the areas related to their research topics and directions (Bourner, Katz & Watson, 2000; Siu, 2009a, 2010). These changes in the nature, characters and format of postgraduate research imply that more students are expected and required to carry out their research outside the university and have more and better connection with the industry (Altback & Johnstone, 1993; Dadashzadeh, Saber & Saber, 2002; Geenhuizen, 2009; Hyland, 1998; Leung, 2004; Poppinis & Singh, 2005; PolyU, 2009a; Siu, 2009b, 2011). In other words, through this kind of students’ off-campus research and work, universities also have more opportunities and better networks to have collaboration with the outside world.

In general, postgraduate research students can learn and gain experience outside the university in two ways. First, a 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. This kind of learning most of the time is directly related to the students’ research directions, objectives and topics. Sometimes the attachment is carried out for nearly the whole period or major part of study. This arrangement is mainly due to the particular environment, facility, supervision, or data available outside the home university (Assiter, 1995; Hyland, 1998; Siu, 2009b). For example, a manufacturing engineering research student may stay in a manufacturing and production company for most of his or her study period to develop a new production system as the expensive hardware and confidential data are only available in this particular company. The testing of the effectiveness of the study, i.e., production line, can only be conducted at the company. A aero science research student may stay in a space science lab to collect specimens or data, and carry out analysis as particular expert advice is only available in that lab and specific data are only available at that particular site. In the same way, an environmental science research student can only get the accurate field data in South Pole or North Pole if she/he wants to collect the ice formation data in extreme environment.

Alternatively, a student may stay in a particular place in order to gain research experience which is expected to benefit the student’s study (Billett & Henderson, 2011; Chen, 2006; Coll & Eames 2004; Hodgson, 1993; Poppins & Singh, 2005; Siu, 2009b; Ujang, 2000; Yin, 2011). 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, these kinds of learning activities are carried out for a relatively shorter period of time. Compared the mode discussed above, such learning activities are also much flexible. 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. A music research student may visit several remote villages not with the same cultural background of the student in order gain inspiration and stimulation for music composing and creation.
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