Chapter 53

Increasing Research Students' Engagement through Virtual Communities

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ABSTRACT

This chapter describes important issues regarding research students' participation in a virtual community. Within a virtual community, university staff can communicate with research students without geographical/space constraints, and research students can exchange views, materials, and experience with their peers and/or academics in a flexible learning environment. Students' participation in virtual communities is mainly based on socio-emotional and informational motivations. Initially, this chapter describes the conditions of research in a traditional environment and the role of students and academics in it, along with the role of pedagogical and psychological aspects in virtual communities. Examples from a university virtual community developed in a Virtual Learning Environment and a Facebook™ closed group are presented. Apart from discussion forums, blended learning activities also increase students' engagement in virtual communities. Technical issues and difficulties based on different learning environments and university members' experience and familiarity with technology are highlighted and discussed.

INTRODUCTION

The word *research* can take on a variety of different meanings. For many students and academic staff, the term can have different implications depending on their research discipline. The term

research evokes a number of connotations: the reading and gathering of information from books, journals, or other printed resources; the undertaking of experiments in a laboratory environment; and the analysis, collection and interpretation of data. Research encompasses all of the above

as a process of systematic investigation with the objective of creating new knowledge. According to the Research Excellence Framework (2011; p. 48), research "is defined as a process of investigation leading to new insights, effectively shared," which may include a definite set of procedures and steps, such as problem identification, data gathering and interpretation, action on evidence and result evaluation. The majority of researchers work independently in one or more of the traditional environments, gathering, interpreting and evaluating experimental data in order to complete their research project to create new knowledge. The interaction between students and academics (supervisors) is mainly based on a face-to-face communication. The frequency of communication is dependent, in part, on students' and academics' workload, styles, and requirements in relation to the disciplinary practice. For example, in a Science and Engineering faculty, students and academics may have multiple and frequent informal interactions since research projects may be conducted in laboratory settings, which may require close supervision of specialist techniques. In a Humanities and Social Science faculty, however, student-academic interactions may be less regular and communication usually takes place in formal meetings (Heath, 2002). Research students, during their studies, may also interact with other academics, such as librarians and technicians, in addition to their supervisory team. By developing contacts and interacting with other staff and students, a research student may save time involved in independent research. University personnel who are experts in a scientific topic or a field are often willing to provide research students with relevant information but, in most cases information holders do not meet with the research students who are in need of the information. Part-time research students are faced with their own unique situations, and are often struggling to balance careers and personal responsibilities alongside their research. Thus, they may not visit the University as frequently to

develop their contacts and to determine who is an appropriate expert (academic or not) to assist them (Watts, 2008).

Moreover, although research students need to follow a specific research model that is different for each discipline, they should develop and use a range of transferable skills to achieve their aims, such as careful planning, observation, evaluation and critical reflection, along with presentation and publication skills. For that purpose, the UK organization Vitae, which supports the personal, professional and career development of researchers, has designed a Researcher Development Framework by providing guidance to research students and staff to develop knowledge and skills (Vitae, 2013). The Framework is informed by consultation within academia and industry, and identifies the characteristics that typify an excellent researcher. These characteristics are clustered within four domains:

- Knowledge and intellectual abilities;
- Personal effectiveness;
- Research governance and organization; and
- Engagement, influence and impact.

The aim of the Framework is to encourage "researchers to plan their personal and career development through achievable goals within an action plan; identifying their strengths and developing those areas deemed weaker or important to their career progression to enable them to realize their potential" (Vitae, 2013). Most UK universities have engaged with the principles of the Researcher Development Framework and have organized and delivered workshops in order to assist their research students to obtain the necessary skills.

In a traditional research environment, research students typically learn to conduct research by working closely with their faculty, following a specific research model well supported by their supervisory team; and they often attend face-to-face workshops in order to develop skills and attitudes

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