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Seeing is believing: Developing research skills in international maritime students through authentic learning

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ABSTRACT

Increasingly, globalisation generates a requirement for employees to be adaptable, informed and able to assimilate and report on complex business contexts. This demand has stimulated an increasing internationalisation of postgraduate management education, particularly on programmes which serve the needs of dynamic industries such as maritime business, challenging tutors to find ways to develop research skills effectively in international students. This paper focuses on authenticity within the context of research informed teaching, which involves a basic relationship between teaching and research as the interdependent core activities in higher education. This study investigates how authentic learning may be used to enhance students' research skills, and reports on a project which aimed to develop the research skills of international maritime business students enrolled on Maritime Business Masters awards at Plymouth. A teaching strategy designed to expose students via field visits and visiting speakers, to practical business contexts significantly enhanced their research skills. As an empirical study, this work contributes to the understanding of authenticity in higher education and confirms the importance of research informed teaching. Findings will be of interest to many programmes which seek to develop the research skills of postgraduate international students in management.

1. Introduction

Authentic learning promotes the exposure of students to industrial practice and personalities as an essential and valued component of their student experience (Rich, 2010). It promotes "the dynamic relation between a personality-under-construction and cultural practices-being-reconstructed… [to develop] an authentic and autonomous person able to participate in a competent, yet critical way in cultural practices" (Van Oers & Wardekker, 1999, p. 231). Authentic learning is an intriguing but poorly understood construct (Krebera, McCuneb, & Klampfleitner, 2010).

This paper focuses on authenticity within the context of research informed teaching, which involves a basic relationship between teaching and research as the interdependent core activities in higher education (Clark, 1997; Healey, 2005; Jenkins, 2000; Rowland, 1996). It investigates how authentic learning may be used to enhance students' research skills, and reports a project which aimed to develop the research skills of international maritime business students enrolled on Maritime Business Masters awards at Plymouth. Given the paucity of extant empirical studies, this work contributes to the understanding of authenticity in higher education. Research informed teaching and authentic learning which underpin this study are well-rehearsed but rarely combined. They are introduced along with situated learning in a brief literature review. The

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project methodology relates the project design and data collection strategy, ahead of analysis and results which consider the impacts of interventions and the effects of differing teaching strategies, age and nationality. Finally, the discussion notes some participant observations before concluding.

2. Literature review

2.1. Research informed teaching

The importance of bringing teaching and research closer together is widely acknowledged (e.g. Barnett, 1997; Gibbs, 1995; Scott, 2002). Some studies suggest that students benefit by being involved in research activities and that their experiences help them to understand the complexity of knowledge (Jenkins, 2000). Undergraduates who have gained research experience benefit from enhanced cognitive and personal skills, and being more satisfied with their education, are more likely to pursue graduate studies (Bauer & Bennett, 2003). Students have been found to value highly the experience of studying in an environment where teaching is integrated with research, and an awareness of the nature and scope of research activities in their universities assists them to understand the role of research in the wider curriculum and gain a more valuable learning experience (Zamorski, 2002).

Rapid economic development and technological advances also heighten the requirement to link teaching and research. As Scott (2002) noted, "[We] are all researchers now … Teaching and research are…intimately related… In a "knowledge society" all students…have to be researchers… [T]hey must…be educated to cope with the risks and uncertainties generated by the advance of science".

Griffiths (2004) defined four approaches to implement the teaching-research nexus. Under "research-led" teaching, curriculum design emphasises the understanding of research findings rather than research processes exhorting students to learn about others' research. Teachers may draw on their own or other's research findings to illustrate concepts and theories or to provide examples. "Research-oriented" teaching, offers students opportunities to learn how to undertake research within their discipline. Teachers teach students about enquiry skills, rather than merely delivering research findings. The curriculum is structured around understanding research processes and methods rather than subject content. "Research-based" teaching develops student knowledge and researcher skills by learning in "enquiry" mode, through activities including case studies, fieldwork, problem-based learning, projects, and acting as research assistants on teachers' research projects (Queen's, 2008). As the teacher's research experience is integrated with the student's learning activities, the division of roles between teacher and students reduces. The fourth approach has a different connotation, focused on teachers carrying out pedagogic research to improve their teaching practice perhaps through practitioner research and reflective practice or drawing on the learning and teaching research of others. The practice of many academics, in combining approaches, often blurs distinctions between them (Brown, 2003).

2.2. Authentic learning

Reality-relevant contexts have long been known to promote active student behaviour (Piaget, 1954). Indeed, learning may be viewed as a process in which learners interact with the outside world and continually reanalyse and reinterpret new information and its relation to the real world (Brown, Collins, & Duguid, 1989; Lave & Wenger, 1991). Under this conceptualisation, a plausible learning environment becomes one in which the real world is brought into the classroom (Brown et al., 1989). Authentic learning aims to build such an environment in which real-world problems and projects are brought into teaching and through so doing, students are motivated and their interest in exploring, discovering and discussing the subject issues is stimulated (Bransford, Brown, & Cocking, 1999).

Where the knowledge that students gain during schooling is insufficient to equip them to cope with the challenges presented by their future employment, the learning materials and environment presented in higher education should "correspond to the real world prior to the learner's interaction with them" (Petraglia, 1998, p. 53). Authentic learning experiences should enable students to match their personal major goal, in their research or future employment (Heath & Mclaughlin, 1994).

2.3. Situated learning

One of the major strategies in authentic learning is Situated Learning which underpins "the notion of learning knowledge and skills in contexts that reflect the way the knowledge will be useful in real life" (Collins, 1988, p. 2). Table 1 summarises its characteristics.

A field visit is a typical form of situated learning. It is an expedition of students to a place away from the school environment to gain different experience or knowledge during the visit. Orion (1993, p. 325) suggests that field visits can provide real experience in learning process and that the "field trip should… focus on concrete activities which cannot be conducted effectively in the classroom". Even within an international learning environment with a rich tradition of supplementing lectures to groups of around 80 students by numerous small group exercises and role plays, and individual oral presentations and tutorials and computer practicals, field visits have been perceived to enhance the intercultural competence of international students (Pyne, Dinwoodie, & Roe, 2007, p. 228; Dinwoodie, 2000).