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Critical learning themes in project management education: Implications for blended learning

Melanie Ashleigh, Udechukwu Ojiako *, Max Chipulu, Jaw Kai Wang

University of Southampton, United Kingdom

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Abstract

This research examines the underlying reasons why students taking project management courses emphasise skills that are transferable and the utilisation of e-learning environments as critical to their learning experiences. Students' opinions are expressed through a series of focus groups. We found that the underlying reasons for students' emphasis on these two factors as crucial to learning and teaching project management could be classed under five higher-order themes. The implications of our findings are that in order to develop desired human, conceptual and technical skills, a teaching approach based on a blend of learning that resides at the intersection of the 'transferable skills' and 'e-learning environments' construct is required for the effective teaching of project management. For effectiveness, this blended form of *andragogy* (learning focused on adults) must be flexible enough to cater for the vast variations in the profiles of students, and their individual learning preferences.

Keywords: Students; Customers; Project management education

1. Introduction

1.1. The people element of project management

Project management is one of the most popular and widely applied transformational management systems and techniques in existence (Lenfle and Loch, 2010). The objective of project management is to deliver complex requirements by employing methods and tools to bring about the successful delivery of an output. The popularity of project management lies in its ability to ensure 'control' (Bryde, 2003; Hobday, 2000), particularly of work of a discontinuous nature, which is generally associated with an unpredictable level of change in the business environment (Hodgson, 2004). Although success in this case is primarily defined by the ability to ensure that the objective of the endeavour is completed (within an agreed budget, on time, and to an acceptable quality), the reality is that most scholars (Calisir and Gumussoy, 2005; Dvir and Lechler, 2004; Lenfle and Loch, 2010) and practitioners (Glass, 1999) regard the rate of project failure as too high.

Numerous scholars including Raheb (1992), Chong (1993), Zimmerer and Yasin (1998), El-Sabaa (2001), Rudolph et al. (2008), Ojiako et al. (2011) and Chipulu et al. (2011) attribute project failure rates to human factors such as poor leadership in projects. For example, Raheb (1992) suggests that 70% of projects (surveyed in Canada) failed due to people factors. Chong (1993) on the other hand estimates that up to 60% of project failures (surveyed in Malaysia) were due to human factors. Specific to the leadership role of project managers, Zimmerer and Yasin (1998) estimated that up to 67% of projects that fail are due to poor leadership on projects. Furthermore, research from practitioners found that problems with people skills significantly contributed to project complexity within the aerospace industry (Azim et al., 2010). They contend that in order for project management to be truly successful, there is a need to take a more holistic approach and that people product and process are all of equal importance in contributing to an effectiveness.

1.2. Project management competency for managers

Project manager development focuses on how relevant skills, ideas and knowledge can be imparted to practitioners working

* Corresponding author. Tel.: +44 023 8059 8968.
E-mail address: udechukwu.ojiako@southampton.ac.uk (U. Ojiako).

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in the field of project management (Crawford et al., 2006). Project manager development can be undertaken through training or through education; (i) training and (ii) education. Training generally focuses on being able to ensure that staff develops behaviour which is both desirable and aligned to the perceived values of the firm (Currall and Epstein, 2003); it is usually a one-off event (Cannon-Bowers et al., 1991) that seeks to specify a 'right' way (Garavan, 1997) of undertaking a specific action. Training can either involve formal or informal forms of instruction (Antonacopoulou, 1999). Formal training programme may in some cases be built around structured and codified procedures which exist within the firms (Inkpen and Currall, 2004). Informal training on the other hand may be socially constructed and unconsciously, built around relationships which exist between staff (Davila, 2005). Project management may also take the form of formal education programmes, which may lead to the award of diploma and degree programmes (Kloppenburg and Baucus, 2004; Walker, 2008).

Although the popularity or usefulness of project management is not questionable (Hobday, 2000), reasons suggested for the high rate of project failure and protracted complexity relate to a perception among scholars that project managers (i) do not have an appropriate level of desired transferable (generic) competencies and people skills to deal with the complexities of modern projects (Azim et al., 2010; Geoghegan and Dulewicz, 2008); (ii) that no standard or recognisable development paths are in place for project management practitioners (Thomas and Mengel, 2008); (iii) that clarity is lacking on the desired generic or transferable competencies and skills that project managers require beyond what is at best an "extensive shopping list" (Cheng et al., 2005; Thomas and Mengel, 2008), although as McLoughlin and Luca (2002) claim, support is readily available to enable those studying project management to achieve these skills, and that (iv) only limited amount of research has been conducted on the relationship between *andragogy*[1] and project management skills that can be taught or learnt (Chipulu et al., 2011; Du et al., 2004; Ojiako et al., 2011). Project management practitioners are therefore, in the words of Thomas and Mengel, "left to choose among these lists based on their own best judgement".

2. Literature review

2.1. Prior empirical studies

The literature evidence allows for the adoption of certain positions as a guide for empirical work. These positions can be summarised as follows: (i) project managers do not have an appropriate level of desired transferable competencies and skills to deal with the complexities of modern projects; (ii) although there is no clarity on desired generic or transferable soft skills, being technology-proficient is identified as critical to project management competence; (iii) there are no standard development paths for project management practitioners; (iv) approaches to teaching and learning will be impacted by a changing student profile, existence of different learning styles and the availability of a wider range of instructional models; (v) no single instructional approach is suitable to all learning styles and for this reason, curricula should be designed to incorporate a range of teaching modalities, and (vi) only limited research exists which addresses how project management competencies and skills can be taught or learnt.

Of the few studies that have sought to examine how project management competencies and skills can be taught or learnt, two earlier studies have attracted our attention. The first was that of Ojiako et al. (2011) which surveyed one hundred and ninety-four students studying project management in two British higher education institutions. In the process, they found twenty two constituent components of students' learning experience of which two, 'transferable skills' and the use of 'e-learning environments' were found to be most significant.

Chipulu et al. (2011) followed up this study using the same cohort of students and employed correlation analysis to explore how these two factors, 'transferable skills' and 'e-learning environments', were impacted by three specific constructs (reliability, overall relatedness and unique relationships). Chipulu et al. (2011) found significant relationships between the experience of students and how effective instructors were using e-learning environments *operationalised* in the form of the Internet-based course management system, Blackboard. In summary, Chipulu et al. (2011), found that (i) a lack of clarity on how current learning approaches in project management led to measurable 'transferable skills'; (ii) academia had been largely unable to demonstrate a clear relationship between what is being taught in project management and how this is transformed into transferable skills; (iii) instructors and students have not fully explored the capabilities of 'e-learning environments' such as Blackboard, and (iv) in line with earlier work by Oliver and McLoughlin (1999) and Friedman and Deek (2003), a strong correlation was found between the designs of 'e-learning environments' and satisfactory usage by students.

2.2. Limitations of prior empirical studies

Although both studies contributed to our knowledge and understanding of project management *andragogy*, their largely quantitative nature limited the contextual richness in terms of identifying how expectations may be better accommodated. The first significant factor that impacted on the learning experience of students studying project management, as identified in the studies by Ojiako et al. (2011) and Chipulu et al. (2011), was 'transferable skills'. According to Cryer (1998), transferable skills refer to experiential and non subject-specific skills that can be used in a wide range of contexts. The main emphasis of transferable skills according to Kemp and Seagraves (1995) is to develop interpersonal skills which include basic writing, communication, and numeric (problem solving) skills. It also includes being conversant with technology. The growth in interest in transferable skills has emerged from a general desire by educators to ensure that project-management students are

[1] Learning strategy focused on adults (see Davenport and Davenport, 1985).