Chapter 5.28

Knowledge Management in Higher Education and Professional Development in the Construction Industry

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ABSTRACT

Development of a 'knowledge society' affects not only enterprises and organisations, but also individuals. Lifelong learning and continuing professional development are essential for graduates and workers to remain competent and competitive. Hence, knowledge management is not only important in business processes, but also in education. As the importance of knowledge management in the construction industry is growing, competence in knowledge management is essential for graduates of curricula related to the construction industry. Design and implementation of such curricula should take into account methods for enriching the knowledge management competences of students in higher education.

This chapter reports on lessons learned from the design and implementation of a particular module where principles of knowledge management are integrated into the learning activities.

INTRODUCTION

Since the early eighties, knowledge management has become a 'hot' issue. Modern organisations consider knowledge as an important resource and a source of competitive advantage. Our society is evolving from an 'information society' to a 'knowledge society'. Advances in information technology and the accessibility to huge amounts of information on the Internet have made everyone aware of the potential for using and creating

information and knowledge. The impact is not only on enterprises and organisations, but also on individuals. Lifelong learning and continuing professional development are essential for graduates and other workers to remain competent and competitive. Hence, knowledge management is not only important in business activities, but also in education.

The impact of knowledge management in higher education is multi-levelled. Educational administrators and teachers have begun to look at how they might use information systems to assist in creating effective learning environments. Knowledge management can also be used to support both educational administration and the teaching and learning environment. As the importance of knowledge management in the construction industry is growing, competence in knowledge management is essential for graduates of curricula related to the construction industry. Design and implementation of such curricula should take into account methods for enriching the knowledge management competencies of students in higher education. This chapter reports on lessons learned from the design and implementation of a particular module where principles of knowledge management are integrated into the learning activities. The module is Surveying Studio in the BSc (Surveying) curriculum of the Department of Real Estate and Construction at The University of Hong Kong.

Processes in knowledge management are not new. However, the knowledge management approach provides a more systematic way in which to design and facilitate learning activities. Students working in a team environment to solve problems are exposed to issues related to knowledge management such as communication, knowledge creation, knowledge acquisition, knowledge sharing, and collaborative work. Students are introduced to various tools to support knowledge management, including dialog mapping software, collaborative authoring, and concept mapping. The goal is to integrate principles of knowledge management into a constructivist learning environment so as to enhance students' competence in knowledge management.

LEARNING OBJECTIVES

1. Appreciate the relationship between learning, professional development, and knowledge management.
2. Integrate the principles of knowledge management in designing a course.
3. Design a course with a constructivist learning environment to promote self-learning and to develop skills of knowledge management.
4. Develop and implement learning activities that make use of knowledge sharing tools.

BACKGROUND

In an 'information society', competency in information literacy is an important requirement in business and in education. According to the Information Literacy Competency Standards for Higher Education (American Library Association, 2000), an information-literate individual is able to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally

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