

## Chapter 69

# Developing Employability Skills in Information System Graduates: Traditional vs. Innovative Teaching Methods

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### **ABSTRACT**

*It is widely acknowledged that traditional teaching methods such as lectures, textbooks and case study techniques on their own are not adequate to improving the most in-demand employability skills for graduates. The aim of this article is to explore the potential impact that novel learning and teaching methods can have on improving the employability skills of Management Information System (MIS) graduates. To do so, the article reports the results of an experiment that was conducted with MIS students at the Faculty of Business and Economics in Qatar University, that combined lectures, case study-based workshops, flipped classrooms, presentations, problem-based learning and collaborative learning. The findings of this experiment suggest that known methods of classroom-based learning and teaching used for MIS graduates are failing to develop important graduate skills such as, critical thinking, time management and how to conduct research when faced with challenging problems.*

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## **INTRODUCTION**

Graduate attributes have received significant attention not only in higher education and industry but also in the move toward quality assurance by governments and accrediting bodies (Willis, 2016). In the US and Europe, business school accreditation bodies such as Association to Advance Collegiate Schools of Business (AACSB), European Quality Improvement System (EQUIS), and Community of European Management Schools and International Companies (CEMS) are focusing on assurance of learning that require universities to integrate graduate attributes into their teaching and assessments (Willis, 2016). As Moyle (2010) posits, the growing complexity of industry and commerce together with advancements in information communication technology (ICT) and globalisation highlights the need for a continuous learning process to develop graduate skills. Several previous studies have investigated the changing demands of information system and information technology (IS/IT) professionals and highlighted a variety of graduate attributes and skills sought by employers (Tran, 2015; Cox et al., 2013; Aasheim et al., 2009; Koppi et al., 2009; Downey, McMurtrey & Zeltmann, 2008). However, balancing academic content with skill-based learning to produce employment-ready graduates is challenging for all universities. University education should maintain a good balance between developing graduates who have the right theoretical knowledge, and employable skills that fit the current market needs (Osmani et al., 2016a)

The impact of the skills challenge that graduates face has a different dimension in different parts of the world. While many Western nations are faced with the challenge of many graduates and fewer jobs, Gulf countries are trying to reduce their reliance on foreign nationals by developing more local nationals capable of tackling the highly skilled jobs in fields such as information and communication technology (Osmani et al., 2016b). Several countries in the Gulf, including Qatar, have initiated national programmes focused on the development of human capital and the movement towards a knowledge economy. To investigate skills gaps within Qatar, one of the wealthiest countries in the Gulf region, and develop a lifelong learning framework, the Qatar National Research Fund (QNRF) has awarded the authors of this paper funding for a three-year project “A lifelong learning framework for enhancing graduate attributes and continuous professional development in Qatar” (LEARNER). This project provides support to the Qatar national vision and the education and training sector strategy and offers a roadmap for developing graduate skills. The work reported in this paper was performed as part of this project and focuses on identifying and developing methods for enhancing the currently in-demand skills for IS/IT graduates through a mixed research strategy combining systematic literature search, horizon scanning of job market, multiple surveys with students, semi-structured interviews with university staff and focus group discussions with leading employers.

This project gathered relevant literature, relevant reports and secondary data in the domain of graduate employability to identify important skills and attributes that are currently most in-demand. Thereafter, it gathered primary data from relevant and informed stakeholders at Qatar University, including academic staff and students, leading employers in Qatar and the UK by means of semi-structured interviews, surveys and focus groups. Then, based on available data, a clear mapping and description of perceived and existing gaps were drawn and identified delineating the most cited (in the literature) and in-demand (as identified by employers) graduate skills for IS/IT graduates. Consequently, an experiment was arranged for MIS graduates at Qatar University that combined traditional and novel methods of teaching to evaluate whether such methods will be able to help develop and improve the identified skills. This approach combined several different learning and teaching techniques including case study based workshops, flipped classrooms, presentations, problem-based learning and collaborative learning. After complet-

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