

## Chapter 2.6

# Developing Graduate Qualities Through Information Systems and Information Technology Literacy Skills

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### ABSTRACT

This chapter introduces role play and case study as an approach to developing graduate qualities through information systems and information technology literacy skills. It argues that a case study and role play approach provides a good vehicle to develop a student's understanding of the graduate qualities valued by employers by developing their skills in the areas of lifelong learning, conflict resolution, problem solving, group communication, and time management. It adds to the understanding of why it is important for business students who will become end-user developers to understand the risks to an organization of poor-quality end-user-developed applications and the responsibilities that they have to their organization to adopt good working practices.

### INTRODUCTION

For some time universities have endeavored to address the shortfall in skill requirements that have been identified by prospective employers of graduates. The University of South Australia (UniSA) includes itself among these universities and has identified a number of 'graduate qualities' that are required to be developed within the curriculum. The development of graduate qualities is aimed at facilitating the transition from university to graduate employment. DETYA (2000) examines employer satisfaction with graduate skills, and concludes that deficiencies perceived by graduates and employers are in the areas of creativity and flair, oral business communications and problem solving, interpersonal skills, and understanding of business practice. Steven and

Fallows (1998) explore “[t]he strategic decision to embed employability skills into each level of the undergraduate curriculum [to ensure that] every student is fully equipped, at graduation, with the skills necessary for the very important transition into the world of employment.”

After consultation with business, UniSA (2000a) identified that a graduate:

1. operates effectively with and upon a *body of knowledge* of sufficient depth to begin professional practice;
2. is prepared for *lifelong learning* in pursuit of personal development and excellence in professional practice;
3. is an *effective problem solver*, capable of applying logical, critical, and creative thinking to a range of problems;
4. can work both *autonomously and collaboratively* as a professional;
5. is committed to *ethical action and social responsibility* as a professional and as a citizen;
6. *communicates effectively* in professional practice and as a member of the community; and
7. demonstrates *international perspectives* as a professional and as a citizen.

Appropriate graduate qualities are identified for each course (subject) within any given program, together with suitable teaching and learning strategies to facilitate the development of these graduate qualities. UniSA has adopted the approach to embed the graduate qualities into its courses rather than teach them separately. Each program is required to demonstrate the inclusion of all graduate qualities, though each course will develop different graduate qualities to different depths.

This chapter evaluates a case study and role play approach to embedding graduate qualities into an undergraduate business information systems course. It is not intended to explore each of

the graduate qualities separately. The case study and role play approach will be used as the focus for the discussion that follows, and will demonstrate how this approach facilitates the development of the graduate qualities.

The course explored in this chapter is one of eight core courses in a business major. The focus of this course is on business students (end-user developers)—not IT or IS professionals—who will go out into the workplace and develop small-scale database applications to help them and their employers in their business role. There is much literature that explores the issues of non-IT/IS staff building poor-quality applications in their workplace, and the potential risks and actual failures that have occurred. In many instances this has resulted in major setbacks for businesses, and at the very least a massive waste of time, energy, and resources on the part of the end-user developer. This chapter explores the information systems and information technology literacy skills that are critical to the development of small-scale database applications by end-user developers.

## **DEVELOPING END-USER APPLICATIONS**

The opportunity for end-users to develop applications that were useful to their own business roles arose in the early 1980s with the introduction of desktop PCs and simple spreadsheet and word processing applications. Simple database applications were later added to the desktop suite of programs.

As the price of hardware and software decreased and the technology advanced in speed and complexity, end-user computing became “crucial for increasing productivity in many firms” (Govindarajulu, 2003). Alavi (1985) identified that “...by developing their own applications, end-users can obtain results faster and satisfy ad-hoc demands for information and analytical capabilities—thereby leading to an increase in

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