

# Chapter XI

## Experiential Group Learning for Developing Competencies in Usability Practice

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### ABSTRACT

*This chapter provides an overview of usability and reflects on a number of years of experience in a usability lab. Over this time, an approach to usability testing called situated co-inquiry was developed. Situated co-inquiry also became a very useful way to structure the teaching of usability. This chapter illustrates this teaching and some of the ways an experiential learning approach has been used in a group setting. I hope that some of this will be new and appealing to you and so assist you to generate fresh ideas in your teaching of the different areas of information systems (IS).*

### INTRODUCTION

Some years ago I brought a large present home for my 4-year-old daughter. She ripped off the wrapping, tipped out the toy, and played with the box. I tried to entice her with the toy I was sure she would love, but she continued playing with the box; climbing into it, putting it over herself, peaking out through a crack. I let go, I made the shift to her world. How could I resist? Software developers have also seen the systems they have made manifest get used in ways they never imagined. Immediately they begin the development process, analysts are creatively generating structures, designers' designs, and programmers are giving them implemented life.

They are all intimately involved. It becomes very difficult—perhaps even impossible—for them to put themselves into a novice user's perspective.

So a specialisation has emerged: the *usability person*. The usability person is commissioned to establish and keep firm contact with the end user and communicate that to the software development team. This is not trivial. It involves appreciating both the software development culture and the end user's culture and finding ways for workable communication to occur between the two.

In addition, IT is no longer being designed for the achievement of tasks but has expanded into the areas of communication, entertainment, and learning. The usability specialist must not only assess effectiveness and efficiency, but now must

also attune to such things as human satisfaction, enjoyment, and engagement. So the successful usability person does well to draw on life experiences as well as learned competencies in usability methods and techniques.

Many industries are seeking effective usability specialists to be part of their system development and maintenance teams. So far, the bulk of these specialists appear to have come from non-IT backgrounds—psychologists, teachers, and public relations (PR) people—and not from graduates explicitly trained in usability by educational providers.

The challenge to tertiary institutes is to deliver appropriately trained people. What teaching approaches will deliver the range of competencies needed? Could industry even benefit during the training process? This chapter will present an experiential group learning approach that has been applied to these challenges over the last few years in a postgraduate setting. Illustrations will be given so that the reflection and investigation of this approach can be grounded in what occurred. Consideration will be given to difficulties. I hope you the reader will be able to imagine how the approach might be expanded, improved, and applied to other student groups and to other areas of IT.

First, the chapter will continue with an outline of the usability field and our experiences with a usability lab. Consideration of the important tensions that occupy the area will highlight the challenges facing the teaching in this area and will inform what learning approaches may work. Our group experiential approach to teaching will be described and the results outlined.

## **USABILITY**

The section will give an overview of some of the current dynamics and tensions within the wider field of usability. This will mainly occur through a reflection on our experiences in a usability lab.

How we built up a set of principles and techniques will be described in some detail because these became the foundation for the content of the teaching of usability and also the guidelines for teaching it.

## **Overview**

Since Nielson's (1994) book, *Usability Engineering*, put usability on the software development map, usability has become more visible in North America, Europe, and Australia and is present and emergent in other places such as South Africa (Barnard & Wesson, 2003), Russia (Burmistrov, Kopylov, Dneprovsky, & Perevalov, 2004), and China (Wang, 2003). There have been a large number of books concerned with usability and user-centred design (UCD) and a number of contributors from different countries on different aspects of usability to international journals, most notably *Interactions* and *Communications of the ACM*. Within the initiated, the value of usability has become increasingly apparent, especially with the expansion of information technology (IT) from specialist internal systems into universal, Web-based, communications, entertainment, and government systems (Shneiderman, 2000).

However, it appears that usability has still a minor impact in the software development industry and has not been integrated into the business model (Venturi & Troot, 2004). Usability and UCD remain “the province of visionaries, isolated usability departments, enlightened software practitioners, and large organisations, rather than the everyday practice of software developers” (Seffah & Metzker, 2004, p. 72). Out of this dissatisfaction, a subgroup within usability work—often called strategic usability—aims to make usability a central, orientating focus of system development (Rosenbaum, 1999). Schaffer (2004) has written a useful book on the politics of *institutionalising* a usability focus within an organisation.

Seffah and Metzker (2004) argue that one reason for the diluted and weak influence of us-

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