

# ICT – Integrating Computers in Teaching

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Creating a Computer-Based  
Language-Learning Environment

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# Introduction

Computer-based learning is a long established area of educational research. In recent years, however, its importance appears to have grown. In the UK, additional impetus has come from Government, particularly through the publication of the Dearing Report into Higher Education in 1997. That report advocated improved provision of ICT facilities for students in third level education because of its belief 'that the innovative exploitation of Communications and Information Technology (C&IT) holds out much promise for improving the quality, flexibility and effectiveness of higher education'.<sup>1</sup>

Consequently, the current educational climate appears to favour the continued integration of computer technology into learning and, therefore warrants a systematic study, through this book. Although this integration is taking place throughout the educational system, from primary to tertiary level, it is the latter where most interest seems to focus and, as a result, this study intends to concentrate on that area. A number of factors support this choice.

At the moment, one of the main trends in higher education is the development of flexible learning. In an educational climate where many undergraduates have to balance academic study alongside undertaking remunerative employment, and distance learning courses enjoy considerable popularity, it appears that universities are responding to a general demand for courses that use flexible modes of study and course delivery, especially through the use of computer technology.

Quality assessment pressures, such as the QAA (Quality Assurance Assessment) in the UK, have led many institutions to develop ambitious plans to use computer technology in learning and teaching,

1 Chapter 13, *Dearing Report into Higher Education*, accessed on the World Wide Web, June 2002: [http://www.leeds.ac.uk/educol/ncihe/nr\\_202.htm](http://www.leeds.ac.uk/educol/ncihe/nr_202.htm)

as well as increasing ICT provision, in an effort to ensure the best possible score in such assessment exercises.

It can be argued that there is more finance available for the integration of computer technology in education in universities than in schools and, consequently, the development potential is greatest in the tertiary system.

Much has been written in the area of computer-based learning and computer-based learning environments, and it would be impossible to consider this vast area within the limited time frame required for this book. It is, therefore, necessary to focus on specific areas of computer-based learning. The use of computer technology in language learning seems an ideal example. This field is well researched, with vast amounts of articles studying specific computer applications (such as CALL, the Web and computer-mediated communication) and their pedagogical value for language learners. Some researchers consider certain computer applications, such as the Web, as a complete learning environment (Harris 1999: 139–164). In other words, they believe that these applications are all that is required for students to learn successfully. In recent years, considerable research has been conducted in the use of Virtual Learning Environments (VLEs), such as *FirstClass* and *WebCT*. These VLEs offer extensive facilities to learner and teacher, and have proved to be particularly successful in distance education. Some would suggest that these, too, constitute entire learning environments. Nevertheless, they, like all computer applications, have pedagogical limitations and few researchers have investigated how to integrate all these applications together to achieve maximal benefit for the learning process. Richmond (1999: 312) suggested this as an area of future research in computer-based language learning.

Furthermore, much of the current research advocates the use of computer technology in a learning environment because of the pedagogical value of computer applications.<sup>2</sup> It does not seem to consider the role of the human teacher and traditional teaching methods in such an environment. This work therefore intends to bridge some of the gaps in research into computer-based learning, especially language

2 An example of this can be found in K Cameron, (ed.) (1999). *CALL: Media, Design and Applications*, Lisse: Swets & Zeitlinger

learning, that have been described above, by considering whether it is possible to create a learning environment that is based around computer technology, but which may embrace other factors and learning and teaching styles.

In particular, this book will consider the following questions:

1. What is a ‘computer-based language learning environment’? What exactly is the role of the computer in this type of environment?
2. What is involved in creating a computer-based environment?
3. Are such environments necessary? Do they work? Do they meet all the needs and expectations of the learners and teachers who use them?

In order to address the above questions, this work has been divided into three parts.

Chapters 1 and 2 consist of a background report on the learning process and study of computer-based learning, with particular reference to language learning, with a view to explaining the concept of a computer-based language-learning environment. This will also help to establish a list of generic factors to be considered in the composition of this type of environment

Chapters 3, 4 and 5 will discuss case study reports on the use of computer-based learning in the languages departments of three separate universities, which may be considered substantially diverse enough in nature and ethos to represent a worldwide sample. This section will illustrate examples of good and bad practice in the creation and implementation of a computer-based language-learning environment.

Chapter 6 analyses the effectiveness of each learning environment, especially with regard to how well these environments meet the needs of language learners and teachers in each institution studied. It offers a basic framework of recommendations for institutions interested in designing a computer-based environment.