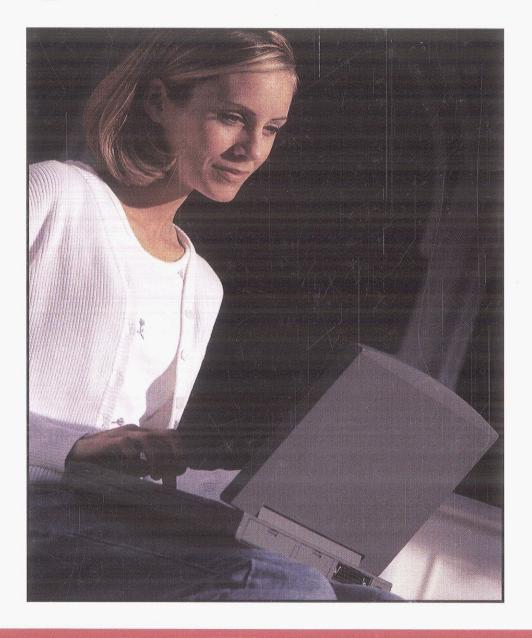
# Applied E-Learning and E-Teaching in Higher Education



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# Section I Partners in the E-Learning and E-Teaching Process and Academic Development

The chapters in this section examine e-learning and e-teaching from the viewpoints of the educational developer, the learners and the tutor, as well as discussing the value of online academic development programmes for e-tutoring.

### Chapter I

This chapter provides a discussion of the changing role of the learning or educational technologist from a background support figure to one central to innovative change in the development and presentation of an online environment. The multifaceted and overlapping roles of the educational technologist are considered in the context of the development of a new module for undergraduate students in higher education. The unique position of the educational technologist as a "winged messenger" able to bring knowledge and expertise across faculties in a higher education institution is emphasised.

### Chapter II

This chapter presents the viewpoint of tutors teaching through a blended-learning format. It aims to draw attention to the impact of technology on tutors' roles in higher education. Issues such as the choice to

incorporate e-learning, and confidence and competence in the use of technology are raised. The authors present findings from a case study of tutors' experiences in changing from a traditional face-to-face to a blended-learning format in teaching interprofessional education to health care students.

### **Chapter III**

Modeling Best Practices in Web-Based Academic Development	35
Diana K. Kelly, San Diego Miramar College, USA	

In this chapter, the author explores the benefits of preparation for e-teaching by participating in a fully online programme as a learner, thus connecting the e-tutor experiences of Chapter II with the e-learner experience of Chapter IV. Concerns about the efficacy of e-teaching are considered in relation to quality, student persistence, and criticisms. The author then presents a discussion of best practice in preparation for e-teaching illustrated by description and reflection of the author's experiences as an e-learner.

### **Chapter IV**

This chapter is written from the perspective of e-learners and, through the personal reflection and discussion of four e-learners, provides advice and suggestions pertinent to course designers and e-tutors. Some of the issues raised are the role of individual factors in e-learning, technological competence and confidence, peer support, the benefits of a blended format of delivery, technical difficulties, the impact of assessment on learning, and the role of the tutors, complementing those mentioned in the two previous chapters.

### Chapter V

Opening Online Academic Development Programmes to International	
Perspectives and Dialogue	84
Catherine Manathunga, TEDI, University of Queensland, Australia	
Roisin Donnelly, The Learning and Teaching Centre, Dublin Institute of Technology, Ireland	

Taking up the topic of online academic development of Chapter III, this chapter discusses the value of incorporating international guests into online academic programmes. Through reviewing literature and two case studies, distinct advantages are offered for students and teachers alike, such as becoming part of an international community of practice and understanding international higher education contexts. The introduction of new perspectives on teaching and learning are discussed. The limitations of online international collaboration are also considered and ways of addressing them are suggested.

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The author presents e-learning as a culture change within an educational organisation and examines the potentials and difficulties that the use of e-learning has from the viewpoint of students and staff. Although the discussion is located within the further education sector in the United Kingdom, the use of examples and suggestions from Jakobsen's experience makes the content relevant beyond this sector.

### Section II Accessibility in E-Learning

Without access there can be no learning and without accessibility there is exclusion. These are the issues of two chapters in this section. The potential of eLearning to improve accessibility as well as the problems are discussed.

### Chapter VII

The opening chapter of this section looks at the issues of access and accessibility in e-learning, setting these issues in the context of access and accessibility within higher education, particularly focusing on debates in the United Kingdom. The authors examine the positive and negative aspects of e-learning with regard to access and accessibility, taking into consideration economic, technological, and geographical factors, as well as disabilities.

### Chapter VIII

E-Learning for All? Maximizing the Impact of Multimedia Resources for Learners	
with Disabilities	. 152
Morag Munro, Learning Innovation Unit, Dublin City University, Ireland	
Barry McMullin, Electronic Engineering, Dublin City University, Ireland	

This chapter continues on the theme of accessibility and provides the practitioner with practical solutions and recommendations for the development of accessible educational e-learning material. The authors provide the reader with a useful examination of educational multimedia in relation to its accessibility to potential higher education students, taking into account differences in learning styles and preferences, and sensory and mobility impairments. A case study illustrates the problems that can make e-learning material inaccessible. The legal implications of the provision of accessible material are considered and accessibility guidelines are discussed.

# Section III Designing E-Learning and E-Teaching Experiences

The chapters of Section III cover the design of online courses and eLearning tools as well as appropriate pedagogical strategies and learning theories in relation to various topics and subject disciplines in higher education.

### Chapter IX

In this chapter, the design and evaluation of an online induction resource for students prior to entering and during their first year in higher education is discussed. It is set in the context of widening participation and issues affecting student retention in higher education in the United Kingdom. The design of the resource is described using the theoretical frameworks of situated, experiential, and constructivist learning. Its purpose is explained and details of its evaluation through qualitative research are discussed.

### Chapter X

A Methodology for Integrating Information Technology in Software Engineering Education......... 201 Pankaj Kamthan, Concordia University, Canada

In this chapter, Kamthan uses an example of software engineering to discuss the integration of information technology into education, both inside and outside the classroom. He points out that the integration of technology requires taking account curriculum content, goals and outcomes, teaching and learning strategies, the participants involved, as well as the selection of the most suitable available resources. Advantages and limitations of the integration of information technology are outlined and guidelines for educators are provided.

### Chapter XI

Addressing the questions of reported problems in teaching research methods to postgraduate students in the United Kingdom, this chapter describes an ongoing action research project on developing a Webbased resource for the teaching and learning of research methods that aims to enable new researchers to develop skills and knowledge. The authors discuss partnership between higher education institutions and the relationship between teaching and research within higher education, and draw out the importance of flexibility and reusability with regard to online resources.

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Instructional Design for Class-Based and Computer-Mediated Learning: Creating the Right	
Blend for Student-Centered Learning	1
Richard Walker, E-Learning Development Team, University of York, UK	
Walter Baets, Euromed Marseille École de Management, France	

This chapter discusses the implementation and evaluation of three models of instructional design that position blended learning with a learner-centred pedagogic framework. In particular, it focuses on the use of e-learning tools to support knowledge building and discourse among communities of learners. Although located in the context of management courses, the experiences and insights of the authors offer designers and instructors a selection of models for course delivery that may be applied to any discipline.

### **Chapter XIII**

This chapter discusses the development, delivery, and evaluation of an online reflective practice resource developed to facilitate registered nurses to critically reflect on practice. The author explains the theoretical framework of the community of inquiry and presents findings of an action research study using this framework. The chapter provides practical insights into the development and use of online communities of inquiry, particularly with regard to facilitating reflection on practice.

### **Chapter XIV**

Using Multipoint Audio-Conferencing with Teaching Students: Balancing Technological	
Potential with Practical Challenges	289
Nick Pratt, University of Plymouth, UK	

Continuing on the topic of designing online resources for professional practice, this chapter discusses the use of multipoint audio-conferencing to enable students to discuss and reflect on their professional practice while undertaking work-based learning during initial teacher training. The author advocates the consideration of technology from a sociocultural perspective and argues that the use of technology needs to be embedded in changes in teaching practice as well as knowledge of how learning occurs. As with the previous chapter, practical insights into the use of conferencing as a resource are provided for the reader.

### Chapter XV

The Alliance of Problem-Based Learning, Technology, and Leadership	309
Timo Portimojärvi, University of Tampere, Finland	
Pirjo Vuoskoski, Mikkeli University of Applied Sciences, Finland	

This chapter reports on a study that aimed to explore whether problem-based learning as a pedagogical strategy and information technology as a medium affects the group learning process on the topic of

leadership. The transformative and reflective potential of problem-based learning as a way of developing leadership skills (such as self-management, team leadership, and patient empowerment) within the health care profession is evaluated in combination with the facilitative potential of online resources.

### Section IV **Online Assessment**

As assessment is an integral part of learning in higher education a discussion of e-learning and e-

teaching would not be complete without examination of this topic. The two chapters in this section discuss formative and summative online assessment.
Chapter XVI
The Use of Online Role Play in Preparing for Assessment
Steven Millard, School of Business and Management, Buckinghamshire New University, UK
This chapter examines the use of the discussion board in a virtual learning environment for role play as a way of effectively preparing for assessment. Acknowledging the use of technology for the provision of certain types of online summative assessment, Millard provides an argument for the use of a virtual learning environment for effectively preparing for more discursive assessment types. The value of role play for the acquisition of information, reflection, and perspective taking as well as increasing student participation is noted, and the advantages of conducting role play asynchronously online are discussed.
Chapter XVII
Mastering the Online Summative Assessment Life Cycle
Simon Wilkinson, Medical Education Unit, University of Nottingham, UK
Heather Rai, Medical Education Unit, University of Nottingham, UK
This chapter provides practical advice and indicates possible pitfalls in developing, delivering, and grading online summative assessments. The authors thoroughly cover the process of online summative assessment, providing the reader with accessible details of the process of developing and administering summative assessment online. Factors such as item development, quality assurance, item selection,

d e examination delivery and analysis of results are considered. Although the topic is discussed in the context of the large-scale assessment of medical students in the United Kingdom. Practical tips are given applicable to the design of all online assessments.

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