

## Chapter 2.11

# The Design of Learning Materials within Small Scale Projects: What is the Value of an Action Research Approach?

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### **ABSTRACT**

*This chapter discusses the design of learning materials in the context of small scale projects within higher education. It describes the enduring appeal of instructional material and its growing use following the take up of virtual learning environments (VLEs) / learning platforms in teaching and learning. It suggests that action research approaches may be of value in the design of instructional material as they offer systematic, formative feedback at an early stage in the design process and prioritise user participation. A case study is provided of a broadly action research approach to the design of instructional material to support academic reading skills at one university. The case exemplifies the strengths of action research but also highlights the tensions and difficulties, in particular that of securing the engagement of stakeholders. The implications for further research are brought out.*

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## INTRODUCTION

In a world in which technology provides opportunities for immersive and more deeply participatory learning than ever before (e.g., Ijsselsteijn, 2005) discussion of the design of instructional materials has an outdated feel. Indeed instructional material under the banner of computer based learning (CBL) or courseware is associated with first forays into the use of computers in teaching and learning. The lasting criticism of CBL, and of courseware in general, is that it is not adaptable in the same way as face to face instruction. CBL became critiqued as electronic page turning both in its heavy text input and lack of interaction (see contributions to Stephenson, 2001) and, in particular, it was not seen as establishing a conversational framework of learner and tutor (Laurillard, 1993) or the wider networking of learners (e.g., Thorpe, 2001). But this is not the end of the matter. A revisionist view is to see something valuable within the history of courseware with, for example, Rushby & Seabrook (2008) arguing that early designers engaged seriously with understanding learners' needs. More recently the idea of instructional material framed by learning objectives, and reinforced by repeated practice and testing, has been revisited within the context of 'learning platforms' or virtual learning environments (VLEs) now widely used within higher education.

VLEs, of course, offer opportunities for discussion and other forms of collaborative activity such as WIKIs, forums and blogs but of central importance is the opportunity they provide for repositories of materials, instructional support and online formative summative assessment all of which can be accessed 'any time/anywhere' (JISC undated). Online learning material can allow learners to reinforce what they have covered through other means (Martín-Blas & Serrano-Fernández, 2009; Ramos & Yudko, 2008; Salaway et al., 2008) and self-assessment can provide feedback on learning across educational sectors (e.g., Angus & Watson, 2009; Gill & Greenhow, 2008;

Gvozdenko & Chambers, 2007; Martin, Klein & Sullivan, 2007; Oxford Brookes University, 2004, Park & Choi, 2008). The introduction of VLEs has provided opportunities for university teachers to develop a wider repertoire of roles including that of 'do-it-yourself designer' of learning materials complete with formative and summative testing. Yet university teachers often find it difficult to take on this role and much of what is produced within a VLE may appear half finished or poorly designed. There are various reasons why this might be the case. One needs to consider the competing demands made on university teachers (e.g., Lingard, 2007); limitations in support and training (e.g., Morón-García, 2006); and perhaps the wider activity system in which innovation takes place (e.g., Kirkup & Kirkwood, 2005). These are difficulties that need addressing at a wider level (JISC, 2009) but it is striking that while there is plentiful advice on, say, the pedagogy involved in design (e.g., Mayes & De Freitas, 2004) or issues of quality in e-learning (e.g., Swedish National Agency for Higher Education, 2008) the design process—the steps an individual tutor or small team of tutors might undertake to produce material within a VLE to support learning—has remained under-reported.

With the above points in mind this chapter looks at the contribution that action research can make as an approach to instructional design within small scale innovations using learning platforms or VLEs. The context is the development of learning material containing guidance and interactive feedback. This chapter is addressing three key questions:

- What is an action research approach to design?
- What is the appeal of an action research approach to design?
- What are the tensions within an action research process?

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