Chapter 7
Towards a Dialogic Model of Video-Enhanced Learning, Assessment, and Feedback

James McDowell
Lancaster University, UK

ABSTRACT

This chapter discusses the implementation of research designed to investigate how video-enhanced learning, assessment, and feedback involves a dialogic approach and contributes to the concept of an integrated model of practice. It builds on the theoretical framework underpinned by both cognitive and social forms of constructivism. Developing design exemplars for video-enhanced learning, assessment, and feedback, three research cycles explored learner-artefact and learner-tutor interactions. The first cycle introduces instructional tutorial videos, freeing up time for formative feedback; the second cycle sees formative video-feedback situated within a conversational framework and video-enhanced assessment activities replace documentation tasks; while the third cycle introduces refinements to the frequency of feedback and regular video diaries, forming an integrated model of video-enhanced learning, assessment, and feedback.

INTRODUCTION

Background and Context

Having previously identified problems with the engagement, progression and retention of students studying for a computer games degree at a north-of-England university, the delivery of learning materials through traditional lectures was replaced by the introduction of a series of instructional tutorial videos (ITVs). These designed to free up time for formative feedback as part of a strategy of assessment for learning (Torrance, 2007), and to help establish cognitive presence (Garrison, Anderson, & Archer, 2001) within a blended learning community (e.g. Volpantesta & Frega, 2007). That intervention (DBRC1) formed

the first of three design-based research cycles which sought to investigate the influence of asynchronous video on the learner experience of video-enhanced learning, assessment and feedback, and this chapter discusses the work of the second and third cycles, which saw the development, refinement and integration of design exemplars for video-enhanced assessment and feedback within an integrated model underpinned by the video feedback loop outlined in the second design-based research cycle (DBRC2) and the third design-based research cycle (DBRC3), below.

THE EARLY RESEARCH WORK

Pre-Cursor Study and First Design-Based Research Cycle

The DBRC1 participant group was formed of twenty-one students, of whom five were known at the outset of the study to be affected by dyslexia. Legislative requirements on UK Higher Education Institutions (UKHEIs) are designed to ensure that students with specific learning difficulties such as dyslexia and/or Asperger's Syndrome, now known as Autism are not placed at a disadvantage in relation to their peers (e.g. Her Majesty's Stationary Office, HMSO, 2001; 2010), and an historical prevalence of students diagnosed with an autistic spectrum condition (ASC) enrolling on the course made it prudent to consider the needs of those affected by an ASC in the design of this first intervention in order to afford inclusivity for participants in subsequent research cycles. The development of the instructional tutorial videos (ITVs) was informed by an appreciation that placing excessive cognitive load (Mayer & Moreno, 2003) on the visual channel could overload the auditory channel (Attwood, 2000; Baron-Cohen, 2008), and that this carried the potential for elective social isolation due to deep immersion in predominantly visual learning materials. This took into account the needs of Alex, a student from an earlier cohort, whose Asperger's Syndrome (AS) had limited his engagement in group work prior to the introduction of computer-mediated communications (McDowell, 2015). The evaluation of DBRC1 revealed that the ITVs had made a positive impact on student engagement, retention and attainment, while also helping participants overcome threshold concepts encountered in the teaching and learning process (Mayer & Land, 2005). Further evidence which emerged through thematic analysis of students' blog entries and their responses to an anonymous questionnaire highlighted calls for greater use of video, confirming that using the medium of video had been well-received, and suggesting that asynchronous video might play a significant and valuable role in assessment and feedback.

SECOND DESIGN-BASED RESEARCH CYCLE: DBRC2

Overview of the Second Design-Based Research Cycle

The challenge for the second design-based research cycle (DBRC2) therefore was to explore and evaluate innovative approaches through which video-based activities could be introduced into assessment and feedback. DBRC1 had identified that learner-tutor dialogue and visual presentations of work-in-progress appeared to contribute to both engagement in formative tasks and, subsequently, levels of summative attainment. Consequently, the work undertaken in DBRC2 aimed broadly to enable the same group of

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