A Student-Generated Video Careers Project: Understanding the Learning Processes in and out of the Classroom

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ABSTRACT

This article describes how in recent years, the multimedia recording capabilities of mobile devices have been used increasingly to create a more active, learner-centred educational experience. Despite the proven value of student-generated multimedia projects, there are still gaps in our understanding of how students learn during them. This article reports on a project in which first-year information technology students interviewed IT professionals in their workplace and video-recorded the interview to enable sharing with their peers. In order to understand the statistically significant increases found in students’ learning, student diaries and reflections were analyzed qualitatively. Factors found to contribute to learning included: the iterative nature of student activities; the multiple, evolving representations of knowledge as students proceeded through the project; the importance of the workplace context in engaging students and enhancing learning; the affordance of mobile technology for capturing and sharing this context; and the collaborative and metacognitive processes fostered by the project.

KEYWORDS

Careers Education, Collaborative Learning, Information Technology Students, Learning Processes, Mobile Learning, Project-Based Learning, Student-Generated Multimedia, Video, Workplace Learning,

INTRODUCTION

Mobile devices – that is, portable digital devices – have been a key enabler in the shift to a more active, learner-centred approach to education in the twenty-first century. Herrington and Herrington (2007, p. 7) note their affordance “as tools for complex and sustained tasks and problem solving” and their support for authentic learning activities, including data gathering in the field and the creation of multimedia content by students. Contextualization of learning outside the artificial environment of the classroom joins with multimedia content creation in powerful ways, as Pachler, Bachmair and Cook (2010, p. 23) describe:

New relationships between context and production are emerging in that mobile devices not only enable the production of content but also of contexts. They position the user in new relationships with space, the physical world, and place, social space.

This paper acknowledges this relationship between context and content through research into an assignment that required students to undertake a project in the field and create a record of their field learning in video format using mobile devices. Thus context (the information technology (IT)
industry workplace) and content (a short video of an interview with an IT professional) were closely intertwined. The learners were first-year, first-semester undergraduate students enrolled in either an IT (computer science) or IT/Business degree. The principle learning objective was for students to acquire knowledge about the careers to which their degrees were leading them, and to enable them to make more informed choices about their majors. It had been recognized by the university that many of our students knew little about IT jobs or the IT industry, perhaps because of the wide diversity of positions that IT graduates fill and lack of knowledge by the careers counsellors at school who had advised them (Robertson, Dyson, Norman, & Buckley, 2002). The real-world context in which the learning experience was embedded was thus the world that the students would come to inhabit upon graduation.

The course in which the learning took place was a foundational communications subject that had previously focused on written and oral communication skills. The introduction of the IT Careers Project recognized that literacy practices had changed and now, in this “post-typographic world,” they included photography, video, sound and multimedia (Davies, 2003, p. 115). Thus a secondary learning objective was the acquisition of multimedia communication skills. To make the video the students used sophisticated video and sound recording equipment provided by the university or the recording functions of their own mobile devices, such as smart phones or home digital video cameras. They worked in small groups of 3-4 students, for the most part independently of their tutor, although they could attend an optional introductory video workshop and later in semester an editing workshop. Most chose not to participate in these but to work it out for themselves, sometimes by viewing videos they located on YouTube or links to online resources provided as part of the project.

The aim of this paper is to explore the learning that occurred during this project and understand the processes that contributed to this learning. Firstly, two surveys, one before and one after the activity, revealed that significant learning took place for both key learning objectives (acquisition of IT careers knowledge and development of multimedia communication skills), based on students’ perceptions. As a result of this, a study was undertaken in which student team Diaries and end-of-semester Reflections were examined to discover explanations for these excellent learning outcomes. This qualitative part of the research indicated several factors that contributed to the outstanding learning outcomes, particularly the iterative nature of the activities which students undertook to produce their videos and their need to repeat many tasks more than once; the transformation of their increasing knowledge into different representational formats as they proceeded through the project; the strongly motivating role of the workplace context; the power of mobile devices to capture this context on video for other students to view and learn from; and collaborative and metacognitive processes favoured by the project-based nature of the task.

The paper commences with a presentation from the literature of the effectiveness of student-generated multimedia projects and theoretical interpretations that have been put forward to explain their efficacy. This is followed by a description of the IT Careers Project and the research methods used for analyzing the learning outcomes and the processes which contributed to learning. The results are presented: firstly the statistical analysis of the student survey results and then the thematic analysis of selected student Diaries, supported by selected comments from student Reflections.

The paper contributes to our understanding of student-generated multimedia learning. In particular, it goes beyond existing research of the observed learning processes of small, in-class projects and provides insights into how teams of students learn when studying independently of their teacher, outside the classroom. It further demonstrates the potential of this learning approach even in very large courses. It is hoped that this example of a successful, sustainable project may inspire other academics to adopt this form of pedagogical approach.
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