

Digital Narratives: Sceneries to Promote Science Education in Primary School

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Abstract: This paper discusses the potential of digital narratives for science education during the early years of schooling. We present two case studies developed in formal learning settings in two primary schools. Children of nine -ten years old were challenged to develop games and multimedia stories about science curricular topics, using several free software applications. We intended to take advantage of the entire technological capacity placed in Portuguese schools by the *e.escolinha* initiative which aimed to provide a low-cost laptop, the Magellan computer, to all primary school children. Findings indicate that working with low-cost technology and free software can generate educational benefits. Developing digital narratives engaged the children in processes of negotiating and collaboration. Digital narratives can be a good context to promote the construction of knowledge in science education.

Introduction

The importance of integrating Information and Communication Technologies, ICT, in primary schools is widely recognized. In this sense the Portuguese government developed the *e.escolinha* initiative (PTE, 2009), which aimed to provide a low-cost laptop, the Magellan computer, to all primary school children from their first to their fourth year of schooling. The program took place between 2009 and 2011, and was similar in some ways to the One Laptop Per Child initiative, as it aimed to deliver low-cost, mobile systems to school children and their families, ensuring the use of computers and the Internet in early learning, and promoting access to their first computer for thousands of families.

Several studies (Rodrigues, 2013) have shown that the use of the Magellan computer did not have the desired impact, and indicated that it seemed difficult to suggest learning activities addressed to primary schools that could really promote authentic learning. The main issue was to find a real context and significant challenges to engage children in meaningful learning.

This paper discusses the potential of digital narratives for science education during the early years of schooling. We present two case studies developed in formal learning settings in two primary schools. We used several free software applications to challenge children to develop games and multimedia stories about science curricular topics. Our aim was to evaluate the use of some digital tools by children and to explore the potential of these activities in teaching learning processes. In this way, we try to take advantage of the entire technological capacity placed in schools by the *e.escolinha* initiative.