Enhancing the Teaching and Learning of History and Geography Through Information and Communications Technology: A Mauritian Experience

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The introduction of information and communications technology (ICT) in the educational system has brought a new dimension to the teaching of history and geography at the primary level. To make teaching and learning of such subjects fun, stimulating, and at the same time interesting for the curricula, the Virtual Centre for Innovative Learning Technologies (VCILT) has developed an interactive multimedia pedagogical support CD-ROM to be used in Standards 4 and 5 (students aged 8–10) of Mauritian primary schools. In this article, we provide an overview of its development and some of the underlying pedagogical approaches used, as well as the claimed benefits of integrating multimedia into the teaching of history and geography at the primary level. We also provide an overview of the feedback received from the use of the prototype multimedia CD-ROM.

In line with the government's policy to introduce ICT into the curriculum at all levels of the education system in Mauritius, the VCILT embarked on a technology-enhanced education research project during 2003–2004. The outcome was a multimedia-enhanced CD-ROM for the teaching and learning of history and geography at the upper primary level. The project was funded by the Mauritius Research Council (MRC) with the collaboration of the Mauritius Examinations Syndicate, the Mauritius Institute of Education, the Mauritius College of the Air and the Ministry of Education and Scientific Research. It began in July 2003. A prototype was submitted to the MRC for evaluation in June 2004. Forty primary schools were involved in this evaluation process whereby the teachers had the opportunity to use the CD-ROM with their students and provide feedback.

In this article, we outline the objectives behind such an initiative, the pedagogical approaches adopted, the claimed benefits and issues arising from the use of technology enhanced support in the school curriculum, and our observations and reflections following testing sessions with the users.

Literature on the Role of ICT and Multimedia in Education

Changes to the learning-teaching process are being adopted in many countries, with the view to preparing students for an information and technology-
based society. ICT provides an array of powerful tools that may help in transforming the present isolated, teacher-centered, and text-bound classrooms into rich, student-focused, interactive knowledge environments (WITFOR, 2003). ICT is believed to have the potential of livening the classroom environment by making teaching and learning more dynamic, interactive, and innovative. Furthermore, it offers scope for the development of the creative mind, both for the teacher and the student. According to Kynigos (2003), educational software needs not only to allow, but also to encourage, teachers to construct and to make changes so that they can devise the exact artifacts they want to use with their own students. This argument is in line with our initiative to incorporate a multimedia element into the teaching of history and geography subjects. Through rich, interactive multimedia-based activities and resources such as simulations and video clips, we hope to improve the learning process and enable teachers to become empowered users rather than passive consumers of existing educational material.

The advent of advanced capabilities of satellites, computers, audio, and video brought a new dimension to the concept of multimedia. As Reeves (1998) explained “multimedia presentations are engaging because they are multimodal. In other words, multimedia can stimulate more than one sense at a time, and in doing so, may be more attention-getting and attention-holding” (p.23). Several research studies have argued that multimedia has the potential to positively influence learning for many reasons.

For instance, Lepper and Cordova (1992) have shown that enhancing learning to be fun can also enhance its effectiveness. For Kellner (2000), computer screens are clearly more graphic (visual) and interactive than traditional media, leading the user to scan visual fields, perceive and interact with icons and graphics, and use devices, such as a mouse, to interact with desired material and fields. According to studies conducted by Liao (1998), multimedia-based instruction is superior to traditional instruction to some extent, depending on what type of instruction it is being compared with and the types of learners involved. Pushed by our strong belief that the integration of ICT across the curriculum could empower and enable teachers to adopt, adapt, integrate, and innovate with information technology in learning and teaching, in the following paragraphs we shall discuss the objectives behind our initiative of providing Mauritian school teachers and students with this pedagogical aid.

The Project Rationale

Current teaching practice

In most Mauritian primary schools, traditional teaching methods still prevail: it is a very teacher- and exams-oriented system. Up to now, the prescribed