

IARTEM 2017

« Mobile Learning »

Albert Strebelle

Lionel Mélot

Antoine Colart

Christian Depover

Université de Mons - Belgique

Analysis of the effects of an iBook exploitation on the motivation and the concentration of the pupils visiting a museum

Abstract.

The touch screen tablet is identified as an emerging technology whose educational use is likely to generate positive impacts (Johnson & al., 2012; Sapers, 2012). It is considered as a tool with cognitive potential (Depover & al., 2007) whose exploitation can promote active pedagogy and amplify communication and collaboration between students as well as between students and teachers (Karsenti & Fiévez, 2013; Huber, 2012). Its portability allows learning outside the classroom for example when visiting a museum. One of the applications useful for this occasion is the iBook. In front of an exhibit, this digital medium allows to communicate additional information or detailed explanations. These contents are presented in a varied (multimedia), interactive and playful way, which is likely to stimulate and maintain the interest of the student and to foster his learning.

The article reports on an analysis of the effects of an iBook exploitation on the motivation and the concentration of twenty-two pupils aged eleven during the visit of a museum. Two variables permitting to apprehend the motivation, perseverance and cognitive engagement, are assessed, on the one hand through an observation grid that is based on Viau (2003) and, on the other hand, through a questionnaire that the pupils had to fill up at the end of the visit. In order to measure the concentration, we used a distractibility indicators list.

Our observations highlight a positive effect on motivation by using touch screen tablets during the visit. The analysis of questionnaire replies confirm this output. Indeed, more than 88% of pupils declared that they appreciated the visit of the museum using the iBook. However, the use of the touch pad during this visit was a source of distraction for some subjects.

Otherwise, a questionnaire proposed to museum guides informs us that 60% of the 123 respondents find the digital book more interesting than audio-guide and they are willing to experiment with it during museum visits. 50% of respondents believe that the iBook would allow students to acquire new knowledge and develop their skills related to observation.

Depover C., Karsenti T., Komis V. (2007). *Enseigner avec les technologies : favoriser les apprentissages, développer des compétences*. Presse de l'Université du Québec.

Huber, S. (2012). *IPads in the Classroom: A Development of a Taxonomy for the Use of Tablets in Schools*. Norderstedt: Books on Demand GmbH.

Johnson, L., Adams, S, Cummins, M. (2012). *NMC Horizon Report: 2012 K-12 Edition*. Austin, Texas: The New Media Consortium.

Karsenti, T., Fiévez A. (2013). Les tablettes tactiles à l'école: avantages, défis et recommandations pour les enseignants. *Vivre le primaire*. 26(4) 33-36.

Sapers J. (2012). *The Evolution of Textbooks*. Spring: Scholastic Administrator.

Viau R. (2003). *La motivation en contexte scolaire*, Bruxelles : De Boeck.