

Mobile Learning in Ghana: A content analysis of YouTube videos promoting teacher development opportunities within Higher Education

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ABSTRACT

Within Africa, Higher Education Institutions are exploring learning opportunities that mobile devices may bring to educators. To this end, institutions are striving to develop content, have materials available to meet demands of their learners. Thus far, majority of the current research has focused primarily on the value of mobile learning for students and researchers have recently started exploring its potentials within teacher development. One trend that has opened up prospects for exploring learning opportunities is the use of mobile communication. Mobile devices are being used to support improvements in educational access and quality in the African Regions, particularly in teacher education. This paper looks at how YouTube videos developed by Higher Education Institutions in Ghana feature participatory approaches to problem-solving while facilitating images of educators acceptance of mobile learning. This approach enables new ways for Higher Education Institutions to promote the use of mobile learning opportunities. This paper also presents a content analysis aimed at addressing mobile learning opportunities observed in teacher education of Higher Institutions. Findings of the analysis indicate that mobile learning projects that focus on access to open education resources such as; supplemental tutorials and content creation are becoming accessible through mobile devices for teacher development.

INTRODUCTION

Higher education institutions have been increasingly seeking to tackle educational challenges in response to improving the quality of teaching and learning as well as expanding access to learning opportunities (Adam, 2003). Increasing numbers, of entering students and the need for qualified teachers, has forced institutions to respond to the unique way of knowledge creation, management, and dissemination (Taleb & Sohrabi, 2012). Ghana faces significant issues that are in need of support to alleviate education indifferences influenced by poverty, location, and gender (Grimus, Ebner, & Holzinger, 2012) . However, mobile learning solutions can assist with these challenges. With Ghana currently (2013) ranking number one within the continent in mobile cell broadband penetrations (Commission, 2013). Mobiles have the potential to recreate existing fields such as education by the use of mobile learning (Ogunlesi & Busari, 2012). The emerging concept of mobile learning is consequently being explored as educationists are starting to explore more about mobile technologies in teaching and learning environment. The potential of new web tools available via mobile device has the ability revolutionize the collection and distribution of the information. This paper focuses in particular on the ways that mobile learning projects are being promoted in conjunction with Universities in the context of Ghana. Specifically of interest is the how topics within education are being explored and represented on YouTube.

Mobile Learning in Teacher Education

In 2011, growth rates for mobile phones within Africa were at the highest in the world at 620 million mobile subscriptions on the continent (GSMA and A.T. Kearney, 2011). The International Telecommunication Union professed the mobile phone as the “mass ICT technology of choice for Africa” (Fripp, 2010). Mobile networks are considered to offer a range of economic and social benefits of full Internet access to people in the African region who could not previously afford it (Otto, 2011). Therefore, the mobile phone holds high potential in teacher development, due to nearly all teachers having access to

the device. Mobile phones contain greater potential than PC's or laptops for educational use due to their widespread proliferation among teachers for personal use. However, Mafenya (2011) acknowledges that most users do not consider the mobile phone's potential for education and, many teachers are not aware of the educational potential of mobile phones. Poor-quality teaching, poor-performing education systems, and lack of educational resources to support learners and teachers are critical drivers for the emergence of mobile learning. Mobile learning has the possibility to open up new avenues for improving the quality of teaching, learning and education management (Graham, 2012). However, within Africa researched based evidence that mobile phones can enhance and support teachers' professional development is sparse. The projects that do exist have been mostly experimental and conducted in isolation from existing teacher development programs. Furthermore, not only are there very few mobile learning initiatives focused on teacher development, but the information on the results of the initiatives and how they have impacted teaching and learning is even more limited.

Current research exists on the mobile learning projects that illustrate the potential of teacher development within the context of Africa. For instance, In South Africa a training and skills development company called Radical Learning has developed a product that provides primary school teachers with daily lesson plans in mathematics and literacy. The lesson plans and homework are accessible via internet-enable mobile phones and serve as a curriculum delivery program where students, teachers, and parents can work with lesson plans available on the phone (Gramham, 2012). Therefore, the mobile phone supports the teacher's function to deliver a curriculum and facilitates lesson planning outside of class. In Tanzania, The Bridge IT project teachers download education videos to a smartphone that is connected to a television in the classroom. Teachers develop the video content, and they use the mobile platform to deliver lessons by screening videos in the classroom and discussing the content with students. Teachers have access to a digital catalog of educational videos that are typically four to seven minutes long (Kasumuni, 2011). In Mali, West Africa, mobile phones support teachers in their delivery of curriculum through classroom practice. The project comprises a range of different educational activities, including a focus on teacher training. Lesson plans are posted on a blog site, and teachers use their mobile phones to access the Internet for online curricula to use in their classrooms. This project represents one of the few in West Africa targeted at teachers. These three examples show how it is possible for mobile phones to support teachers in curriculum delivery, both in and outside of classrooms. However, few empirical studies exist that include mobile learning usage for teacher development in higher education within the context of Ghana. While increasingly moving toward content being available via a mobile device, curricula offered via mobile phones for teacher development provides a more participatory approach (Graham). Although few initiatives have been undertaken, media has enabled Higher Education Institutions to promote the use of mobile devices within teacher development. YouTube videos developed by Higher Education Institutions within Ghana feature more participatory approaches to teacher development while facilitating images of local individual's and community acceptance of mobile learning.

THEORETICAL FRAMEWORK

This study uses constructivism as the major theoretical framework underlying my view on mobile learning in this study. The constructivism theory views learning as being constructed by one's real life experiences by allowing individuals to build up their own knowledge based on previous or current knowledge (Zurita, Nussbaum, 2004). Mobile devices can present a window of opportunity that favors constructivism and collaboration in order to achieve creation of new knowledge (Zurita, Nussbaum, 2004). While learners solve real world issues in the context of their authentic environment, individuals have the ability to actively construct new ideas or concepts with access to supportive tools (Naismith, Sharples, Vavoula, & Lonsdale, 2004)

METHODOLOGY

This content analysis will seek to describe the various ways that mobile learning has supported teacher development with the support of higher education institutions with the context of Ghana by conducting an analysis on YouTube videos. The following question was investigated:

1. How are Universities promoting mobile learning opportunities for teacher development?

A Content analysis was used to assess YouTube videos about Ghana. Data has been collected successively and consist of a questionnaire used for all 25 videos. Purposive sampling was selected by using the keywords "Ghana mobile learning". A total of 25 videos uploaded between 2007-2014 from the perspective of YouTube South Africa were purposively selected and downloaded by a local University in Ghana, which was identified by the "source" feature in YouTube. Although most Universities partnered with countries from developed nations, the videos had to appear to take place in the country under consideration while focusing on local communities. In order to carefully examine how Universities promoted mobile usage for learning; videos were analyzed and coded into two categories (open education and teacher training). For a thorough investigation, all questions in the questionnaire and coded data were analyzed through descriptive statistics by using SPSS.

FINDINGS

Number of Views

Although universities are promoting these projects, a general question is whether anyone sees them. If so, a distribution channel free of traditional mainstream media outlets would serve as information flows between Africa and other parts of the world. In addition, Africa could have a voice without the mediation of western media conglomerates. The most frequently viewed post were the videos focused on open education mobile projects with an average number of watches being over 7,000 views. The number of views could have come from anywhere in the world by viewers with a diverse background. These videos were created with the University of Ghana with a focus on Open Education Resources in conjunction with the University of Michigan.

Focus of Videos

The most frequent type of content was the open education videos, which make up 67 percent. Major Universities in Ghana along with United States and Canada Institutions may have contributed to the focus on teacher development content for pre-service teachers, which would attract larger audiences. These videos focus on resources for both professors and pre-service teachers that provide open educational resources such as course materials, videos, and student work that can be access by using a mobile device. The resources are freely available for use, redesigning and redistribution. Users are encouraged to explore, build new educational resources, and redistribute their results. According to the videos, the mission of the projects is to develop education resources in Africa based Universities with content produced by Africans in order to share information, address curriculum gaps and support higher education communities. Teaching Education videos tended to focus much more on the preparation of teaching education among soon to be primary school teachers. These videos made up 33 percent of the search. From the results, Teaching Universities in Ghana have partnered with NGO's and Universities in the United States that focus on mobile learning teaching education projects. These videos involved teacher training that focus on topics such as; vocational training, classroom management, and English literacy. The videos are presented in the form of instruction to teachers including how to respond to learners in live examples. They may serve as a resource for teachers by having many of the topics under one YouTube channel. However, the highest numbers of views have only been 700. According to Ekanayake & Wishart, (2014) Teacher support and teacher preparation have been the least examined topics in mobile learning research.

DISCUSSION

The current situation is that the demand for tertiary education in Africa, in general, does not align seamlessly with the growth of available facilities and resources. Teacher development is currently being transformed by the integration of new technologies. In teacher development, open resources can provide pre-service teachers with not just basic ICT skills, but also the pedagogical and innovative skills to leverage technology to improve learning and teaching both in and outside of classrooms (Isaacs, 2006). With the majority of the videos being uploaded to promote open source learning for students, many individuals within the videos gave personal testimonies about their success within the classroom from the resources. They also stated that they felt better prepared for the supplemental instruction that is available on their mobile device. Professors also agreed that the tutorial videos were being used as a teaching supplement. Finally, the initiatives in this review have all been enabled significantly by the fact that most teachers already possess their own mobile phones. Future studies could focus on an analysis of mobile learning initiatives that focus on professional development and teacher training within the context of Africa. In addition to the need to improve the quality of teaching and learning, the demand for more efficient and effective management of school systems is also a key driver in the use of mobile phones in education

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