Assessing Foreign Language Learning Through Mobile Game-Based Learning Environments

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ABSTRACT

With increasing globalization, foreign language skills have become one of the main requirements when applying for a job in leading ICT companies. Due to their ubiquity and multi-functionality, mobile devices allow teachers to provide technology-friendly students with highly dynamic learning contents in line with their lifestyle. Unfortunately, most of the available APPs still support a mainly one-way interaction (teacher to learner or computer-client interaction). The authors have designed an APP based on a highly interactive, ubiquitous and constructive learning approach. The current paper illustrates firstly how the APP has helped learners to get actively involved in their own learning process sharing and assessing their foreign language knowledge. And secondly, how students’ logs can be used to automate the assessment of different skills such as the ability to explain terms in a foreign language or to assess definitions created by other game players.

KEYWORDS

APPs, Foreign Languages, Gamification, MALL, Peer-Assessment

INTRODUCTION

With the increasing globalisation foreign language skills have become one of the main job requirements when applying for leading ICT companies (EGFSN, 2013). Most ICT professionals are used to reading technical documentation in English having good reading skills. But the needs of ICT companies go beyond, requiring also good communication skills in order to effectively...
communicate and work on a global level (ICT Ireland, & ISA, 2011). With this increasing rise of the Information and Communication Technologies (ICTs) in people’s daily lives many educational institutions have started integrating ICTs in their course syllabus. This is illustrated, amongst others by the growing use of different kinds of Learning Management Systems (LMSs) (Del Blanco et al., 2011) providing teachers and learners with new opportunities as well as challenges. Whilst teachers get the opportunity to more easily manage and administer course contents and learning resources, these become much more accessible for students, since they are no longer restricted to factors such as time and place. Additionally LMSs offer their users the opportunity to create highly interactive learning environments allowing both teachers and learners to interact and communicate amongst each other beyond the classroom.

Other types of learning platforms that are becoming increasingly popular are the so called Personal Learning Environments (PLEs) (García-Peñalvo et al., 2014). PLEs allow students to manage and control their own learning processes. Since many students access these environments by using their mobile devices, they are often called mobile Personal Learning Environments (mPLEs) (Conde González & García-Peñalvo, 2014). This and other examples highlight that mobile devices can be used not only as tools for browsing the Internet, but also for educational purposes.

In line with the growing trend and interest in exploring mobile devices for educational purposes in general and foreign language learning in particular, in the present study we have designed a gamified APP, called GuessIt!. GuessIt! is a highly interactive APP which aims to enhance students’ motivation towards independent foreign language learning through a game-based learning environment. Since gamification has been identified as a highly potential tool to engage students’ motivation as well as learning outcomes (Bytheway, 2011; Connolly et al., 2001; Hamari et al., 2014), the use of games has attracted the interest of many practitioners in the area of education (Burston, 2013; Vassilev, 2015; Minovic et al., 2012).

The impetus in exploring the possibility of integrating gamified APPs in our course syllabus (Chinnery, 2006; Sharples et al., 2005; Steel & Levy, 2013; Berns & Palomo-Duarte, 2015) was the fact that nowadays devices such as smart-phones are amongst our learners’ most frequently used gadgets (Agudo et al., 2011).

The purpose of this ongoing study is to provide students with learning tools that are able to support them in their learning process, especially outside the classroom. The target group of the current study were students from a German language course (6 ECTS) at a Spanish university. The course was based on 48 hours of face-to-face teaching combined with 104 hours of independent learning per semester. Independent learning is seen as part of blended teaching practices and expected to be done, by each student, individually and beyond the classroom. Furthermore, since most of our language courses have a large number of participants it becomes even more necessary to provide them not only with additional learning resources, to foster and widen their language knowledge, but also with personalised feedback on their learning performance (Garrison & Kanuka, 2004; Berns et al., 2013a; Berns et al., 2013b).

The following paper is set out as so: Section 2 sets out the context of our project within related works. Section 3 outlines the teaching background for our experience. Section 4 describes the learning design we implemented, followed by section 5 that lays out the experiment settings and discusses the results obtained. Finally, in section 6 we will provide conclusions and an outline of our future work.

RELATED WORKS

Mobile learning (m-learning) has created a new learning paradigm in educational settings as an extension of distance and blended education. Amongst the most commonly used devices are smartphones, tablets and PDAs (Chao & Chen, 2009; Trinder, 2005). Mobile learning offers new learning tools that can be adapted to this approach. The Information Gathering and Lesson Tool (IGLOO) is one example of the many tools and applications that have been developed. IGLOO is a mobile
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