Chapter 6

A Community-Driven Mobile System to Support Foreign Language Learning

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ABSTRACT

The acquisition of foreign language competencies has become one of the main concerns of current ICT educational policies. Mobile smart devices allow teachers to provide students with personalized learning environments in line with their needs. However, most of the available apps, especially in the area of foreign language learning, still focus on form-based learning supporting mainly one-way interaction. In this chapter, the authors designed a learning system based on a dynamic, asynchronous and constructive learning approach. The chapter illustrates how the system helped students to get involved in their learning process by creating, sharing, and assessing their own learning resources and how teachers could benefit from students’ logs to retrieve indicators for assessment processes. Finally, two algorithms that guide students’ learning processes are compared: the first algorithm is based on community-driven behaviour, the second one on students’ individual behaviour. Results show that both algorithms provide similar outcomes.

DOI: 10.4018/978-1-5225-5297-0.ch006
INTRODUCTION

Due to the increasing trend towards globalisation foreign language competencies together with generic competencies have become two of the main job requirements in all professional areas especially in leading Information and Communication Technologies (ICT) companies (EGFSN, 2013). Even though most ICT professionals are required to understand technical documentation in English or, sometimes, even German, they often lack the language competencies they would need in order to effectively communicate and collaborate with other speakers of the target language (ICT Ireland, & ISA, 2011). Due to the growing rise and availability of the ICTs coupled with the need to support students’ in their learning process, especially out of class, many educational institutions have started integrating in their teaching process different kinds of online learning tools. Among the most widespread ones are Learning Management Systems (LMSs) such as Moodle, Blackboard, WebCT, etc. (Del Blanco et al., 2011; Berns et al., 2013a & b) since they provide both, teachers and students with new opportunities to facilitate and enhance teaching and learning processes. Apart from LMSs there are other types of learning platforms such as Personal Learning Environments (PLEs) or mobile Personal Learning Environments (mPLEs) (Humanante-Ramos et al., 2017; Kukulskia-Hulme, 2016) that are becoming increasingly popular, since they allow teachers as well as students to manage and control their teaching/learning contents according to their needs. Furthermore, PLEs allow for a more ubiquitous teaching/learning process enabling teachers to more easily manage and administer their course contents and teaching resources, students to access learning resources at any time and place (Berns et al., 2017a) and finally, to allow its users to create highly versatile and learner-centered learning environments (Viberg & Grönlund, 2012).

In line with the growing trend and interest in taking advantage of mobile devices for educational purposes (Iglesias Rodríguez, García Riaza, 2017, & Nielson, 2017), especially in the area of Mobile Assisted Language Learning (MALL), the authors of the current study have designed a dynamic mobile learning system, called Anon_app (Berns et al., 2015 & 2017b) that aims at enhancing students’ language learning process by means of a collaborative learning environment. Since gamification has been identified as a potential tool to increase students’ motivation as well as learning outcomes (Bytheway, 2011; Connolly et al., 2001; Hamari et al., 2014; Berns et al., 2016), the use of games has attracted the interest of many practitioners in the area of education (Burston, 2013; Minovic et al., 2012; Vassilev, 2015; Sithigh, 2011). This together with the fact that nowadays devices such as smartphones and tablets are amongst students’ most frequently used gadgets (Agudo et al., 2011; Chinnery, 2006; Berns & Palomo-Duarte, 2015) encouraged the authors of the current chapter to integrate a gamified app in the course syllabus of a German foreign language course. By using game elements the authors intended to increase students’ motivation towards language learning, especially outside class. In a context in which students often lack the language input and practice they would need to acquire the level, they are expected to have at the end of the term, the current study aims to take advantage of the possibilities of a community-driven mobile learning system to support students in their language learning process, while at the same time helping teachers to more easily monitor and assess students’ learning process (Garrison & Kanuka, 2004; Berns et al., 2013a; Berns et al., 2013b).

The current chapter illustrates first, how the mobile learning system helped students to become actively involved in their own learning process by creating, sharing and assessing their own learning resources and second, how teachers can benefit from students’ logs to retrieve objective indicators to enhance assessment processes. Finally, the software system implements two different algorithms in order to support students’ in their learning processes. While the first algorithm is based on students’ interac-

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