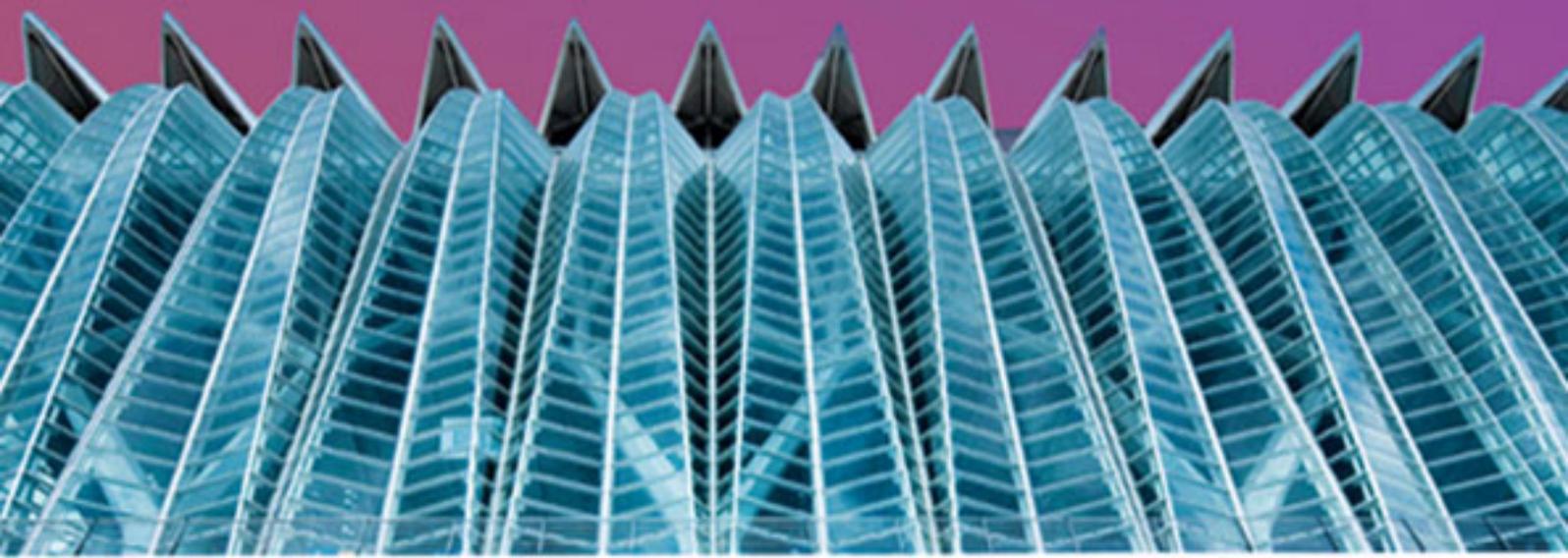


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APPLICATIONS FOR MOBILE ASSISTED LANGUAGE LEARNING: A CURRENT FIELD RESEARCH

P. Arvanitis, P. Krystalli, P. Panagiotidis

Aristotle University of Thessaloniki (GREECE)

Abstract

Over the last few years, Mobile Learning (m-Learning) has increasingly attracted scholars' attention. m-Learning is defined as the use of mobile devices in learning such as mobile phones, tablet pcs, pocket pcs and personal digital assistants (pdas). Several studies have pointed out that m-Learning is an interactive type of technology-based learning that can enhance students' motivation. The emergence of new technological equipment and software has facilitated the creation and development of effective methods and materials for mobile assisted language learning (MALL) which is a specialization of mobile learning (m-Learning).

This paper focuses on the use and effectiveness of MALL in second and foreign language (L2) education and on the potential of mobile devices as effective tools for delivering language learning materials to the students in terms of gained linguistic knowledge and skills. To this end, a field research was carried out on a sample of 20 applications for L2 learning, created for mobile devices, focusing on the most popular ones: smartphones and tablets. In particular, using the principles and standards proposed by the Common European Framework (CEFR), there was an effort on determining whether these applications contain languages activities in order to successfully support reading, writing, listening and speaking skills and language acquisition in general. Based on the findings further areas of research are suggested.

Keywords: Innovation, technology, research projects, m-Learning, MALL.

1 INTRODUCTION

In recent years, with the rapid evolution and integration of technology into our everyday activities, new teaching methods, approaches and models of learning, based on technology have become more popular. Technology has transformed learning from traditional and teacher led classroom education, to education based on e-Learning and nowadays on mobile learning (m-Learning). In fact "the proliferation of mobile technology provides a myriad of opportunities to support learning and performance both inside and outside the classroom" [1].

Empirical studies and research have investigated the potential and the educational value of mobile devices pointing out that m-Learning can enhance learning motivation [1], [2], [3], [4], [5],[6] reinforce students' engagement [3] [7], promote student autonomy, self-efficacy and authentic learning [3] [8] and aid students to develop digital skills [5],[9]. According to Miangah and Nezarat [10] "m-Learning is characterized by its potential for learning to be spontaneous, informal, personalized and ubiquitous"

As a specialization of m-Learning, Mobile assisted language learning (MALL), offers modern methods of support to the process of language learning through the use of mobile devices (such as mobile phones, tablet pcs, pocket pcs and personal digital assistants pdas). MALL opens a wide range of learning and teaching opportunities for second and foreign language (L2) learners and teachers [4].

The main purpose of this paper is to investigate whether MALL applications for language learning facilitate learners of L2 to develop and enhance their linguistic skills and competences as they are described in the Common European Framework of Reference for Languages (CERF) (2001) [11]. To this end, the present study includes a field research based on a sample of 20 applications designed to teach a range of different languages.

2 BACKGROUND

The use of wireless and mobile devices is progressively increasing across every sector of education and envision students who are continually on the move, learn across space and time, and moving from topic to topic and in and out of interaction with technology [12]. Therefore, MALL can be considered an an ideal solution to overleap language learning barriers in terms of time and place [10].

In this section of the paper we will first try to clarify the notions of m-Learning and MALL and demonstrate the educational benefits or drawbacks of MALL as derived from the literature review.

2.1 Defining m-Learning and MALL

The literature review has revealed that defining m-Learning is not an easy task to do, as different terms and concepts are involving. As Taylor (2006) [13] has indicated m-Learning can be understood in a variety of ways, depending on the element that we focus on: learning through mobile terminals, learning with students that are on the move and learning through mobile content. Therefore we can find definitions which focus on the technological, educational component or combination of both of them such as El-Hussein's and Cronje's (2010) definition : "any type of learning that takes place in learning environments and spaces that take account of the mobility of technology, mobility of learners and mobility of learning" [14]. O'Malley and her colleagues [15] have defined m-Learning from the learner's perspective as "any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of learning opportunities offered by mobile technologies". Conde, Muñoz, & García [16] have defined m-learning by situating it between e-Learning and ubiquitous learning (u-Learning):

"m-Learning" can be understood as an evolution of e-Learning which allows students to exploit the advantages of mobile technologies in order to support their learning process and constitutes the first step towards the creation of ubiquitous learning".

Furthermore Rossing's *et al* [7] definition of m-Learning summarizes the above definitions as follows: "the efficient and effective use of wireless and digital devices and technologies to enhance learners' individual outcomes during participation in learning activities".

MALL is a specialization, a subarea of m-Learning and it deals with the use of applications designed for mobile and wireless devices in language teaching and learning. According to Kukulska-Hulme & Shield (2008) [17] MALL is defined in terms of "its use of personal, portable devices that enable new ways of learning, emphasizing continuity or spontaneity of access and interaction across different context of use". Additionally, Palalas (2011) [18] proposes a definition which includes both aspects of mobility: "MALL can be defined as language learning enabled by the mobility of the learner and portability of handled devices".

Hence, through the use of MALL learners can access L2 materials in and out of the classroom and whenever they desire by enabling authentic and spontaneous communications and by receiving text messages in the target language.

Although, workshops and various studies, which have taken place during the last decade, have used a variety of mobile devices in MALL such as laptops, Mp3players and iPods, iPads, podcasts and vodcasts, mobile phones, voice-messaging, GPS and even audio guides which can be found in museums or galleries, the devices that take up most of the research are smartphones and tablets [19]. Therefore, next section presents their educational value through their didactical use in MALL.

2.2 Educational benefits and drawbacks of MALL

Nowadays, mobile devices are not exclusively used as simple communication and entertainment tools as they did in the past. Researchers have used them as pedagogical tools in order to expose learners to authentic communication situations and tasks that they will need to accomplish using the target language. In fact, several studies have pointed out that as educational tools, applications on mobile devices "can provide language learners with real-world opportunities to negotiate meaning and to engage with comprehensible input and output" [20].

Concerning the nature of studies, in regard to the benefits and drawbacks of MALL, they can be classified in two types: implementation studies and review studies. Burston's (2013) [20] annotated bibliography is the most completed review study which provides a comprehensive historical background of MALL applications (1994-2012).

The most important educational benefits from the use of MALL listed in this study are the following: large gains in listening and speaking ability, vocabulary and grammar knowledge, improvement on the interaction between students, enhancement of learning motivation and learning interests and finally increase of creative thinking [21]. Furthermore, Kukulska-Hulme and Pettit [22] support that there are other benefits such as convenience and portability, productive utilization of dead time, ability to connect and interact, affordability, accessibility of up-to-date material, and multimedia options.

However, as literature review has revealed a number of negative factors, problems and disadvantages have been cited too. First of all, researchers have pointed out that teacher-centered, transmission model programs continue to dominate MALL applications. [23], [18], [2] suggesting that they must be more extended to learner-centered and self-directed language learning. Likewise, Park and Slater (2014) [20] have underlined that applications used in MALL lack of instructional design and especially design based on Task-Based Language Teaching (TBLT) model. The same finding led Lindaman and Nolan (2015) [24] to point out that “significant preparation is required in order to design applications that are pedagogically sound, make the most of a mobile platform’s potential for interactive learning, and are well suited for use in and outside of communicative classrooms”.

Moreover, mobile devices have also technological disadvantages such as small screens which creates reading difficulties, data storage and multimedia limitations [10]. Despite the drawbacks and the problems cited above, researchers agree that MALL applications which are task-oriented and learner-centered can provide models of innovative practices and can transform the learning process by creating a new learning culture which better suits learners’ needs.

3 THE STUDY

This section describes a short field research, the method used to collect data and their analysis.

3.1 Description of the sample and methodology

The sample of the present research consists of 20 applications for language learning. The target population was all free online applications designed for L2 learning and teaching. In order to select our sample size a search was conducted through Google play store, the official app store for the Android operating system, and Apple Store, the official app store for the iOS operating system. A total of 20 software applications were selected, downloaded and installed in tablet and smartphone devices.

Following, a basic content analysis of each one of the applications was conducted. More specifically, there was an assessment whether the application deals with the four language skills and contains activities that focus on one or more of the following linguistic competences: lexical, grammatical, phonological and orthographic. For this purpose an online database was created with fields to store the gathering data. The examined applications are the following: Duolingo (duolingo.com), Babbel (babel.com), Memrise (memrise.com), 50languages (50languages.com), Phrasebook (bravolol.com), LingQ (lingQ.com), Rosetta Stone (rosettastone.eu), Edushire Language Learning (speaktribe.com) , mondlanguages (mondlanguages.com), Chinese–skill (chinese-skill.com), pindropapps (pindropapps.com), sagetsang.com (sagetsang.com), innovativelanguage (innovativelanguage.com), funeasylearn (funeasylearn.com), lingosmio (lingosmio.com), languagecourse (languagecourse.net), lingofly (lingofly.com), studycat (studycat.net).

3.2 Data analysis

The data analysis concluded that the majority of studied applications use android operating system and/or web platform (Fig. 1).

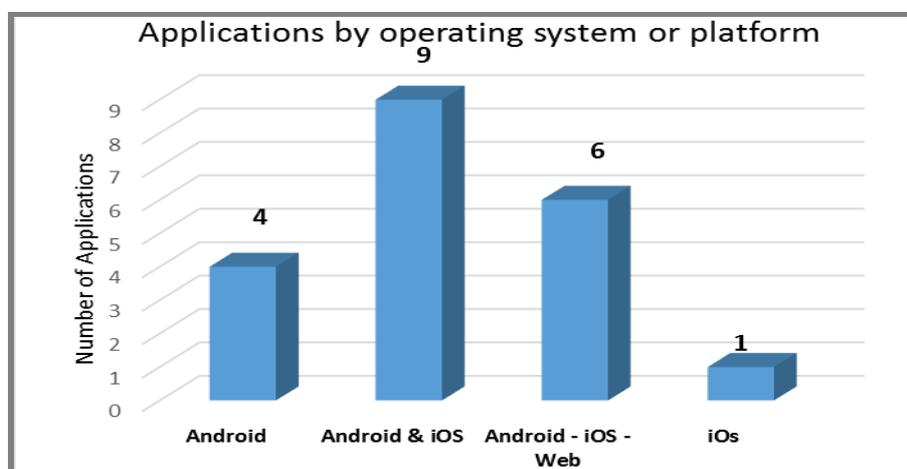


Figure 1

As for the applications per taught languages (Fig. 2) the majority of them deals between 4-50 languages. The languages taught were: major taught European languages such English, French, Spanish, German, Italian, Russian, less taught European languages such as Irish, Danish or Swedish, and major Asian languages such as Chinese, Japanese or Korean. Only 5 applications deals with other Asian languages (Filipino, Vietnamese, and Thai) or Arabic languages.

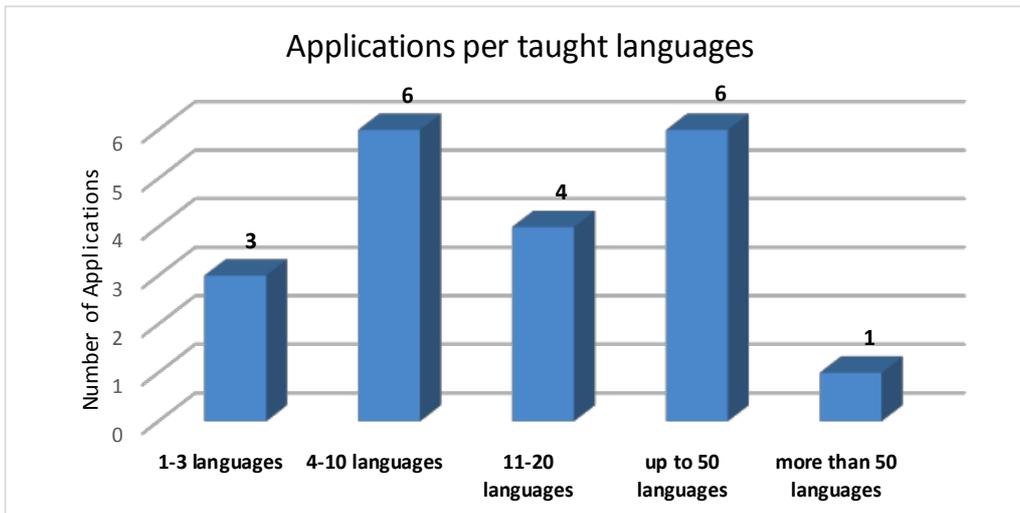


Figure 2

Furthermore, as for the applications by language skills (Fig. 3), all the studied applications develop reading and listening language skills but only half of them use activities for writing and speaking skills.

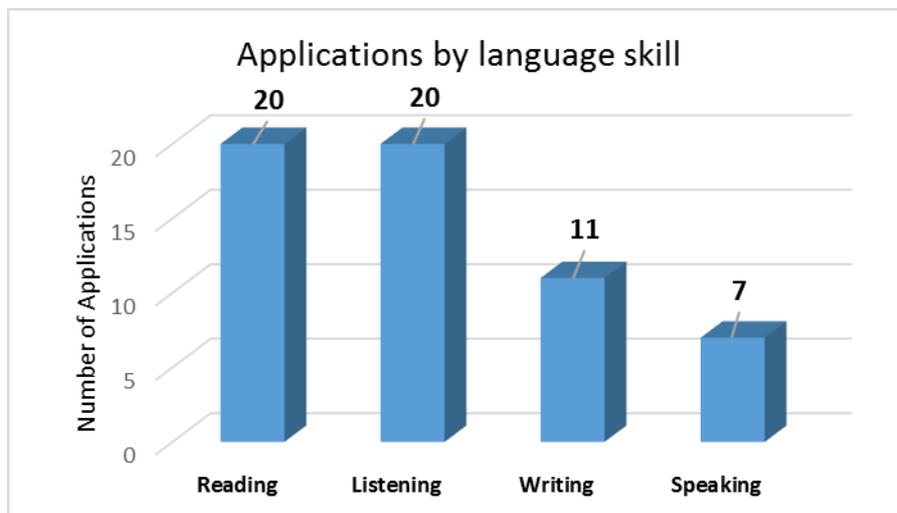


Figure 3

As for the applications by linguistic competences (fig.4) it has been demonstrated that the development of lexical and grammatical competences exists in all applications whereas orthographic and phonological competences exists only in half of them. The types of activities used are in most cases, matching activities, filling the blanks activities and multiple choice activities.

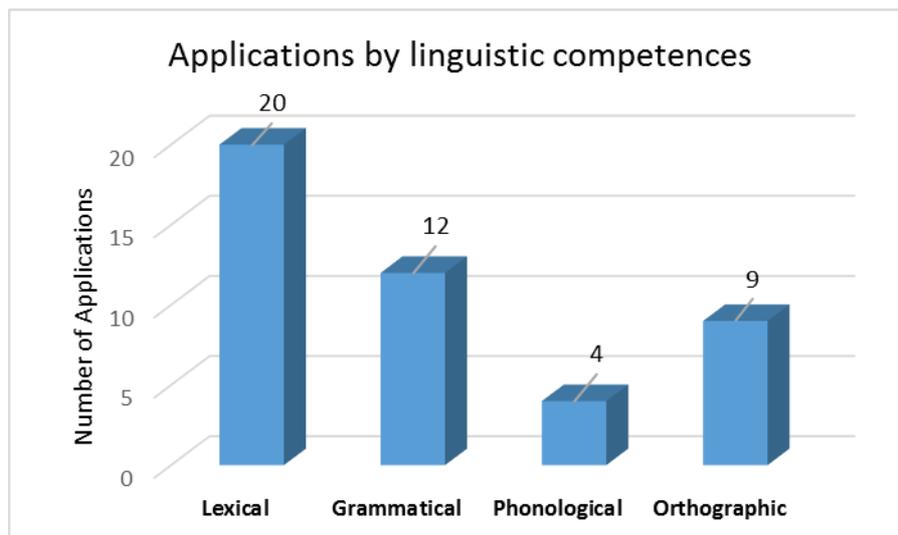


Figure 4

3.3 Results and discussion

Our findings suggest that a sufficient number of MALL applications for language learning have been well designed in order to help learners to acquire a basic level in a foreign language. In most cases the applications use very intuitive interfaces, characterized by functionality, user friendliness, and supported by bilingual dictionaries or other tools (user tracking effort systems, personal tutoring systems, etc), that let students have a feedback of their progress or let them set their own learning goals. They have a lot of features such as user friendliness, functionality, usability

According to the results, the content of most of the applications focuses on the development of lexical and grammatical competences based on linguistic activities such as matching, filling the blanks, multiple choices and crossword puzzles. Furthermore, our findings suggest that a sufficient number of MALL applications aim to help learners develop reading and listening skills.

Based on these results, we could claim that several of the studied applications don't follow the specific standards proposed by the Common European Framework. This can be explained by the fact that these applications are commercial products developed outside Europe (i.e. in the United States) where CEFR is not widely accepted and therefore compliance with its specifications is not required.

4 CONCLUSIONS

This paper focuses on the use and effectiveness of MALL in second and foreign language (L2) education and on the potential of mobile devices as effective tools for delivering language learning materials to the students in terms of gained linguistic knowledge and skills.

The literature review has shown that MALL applications can enhance motivation, help and support learners to acquire their autonomy and improve creative thinking. The short field research that was carried out on a sample of 20 applications for L2 learning has shown that there is a huge dynamic in the field of MALL applications but there is also unconformity with the standards proposed by the Common European Framework, as well as a lack of task based language learning activities.

Furthermore, there is more need for empirical research in order to ensure that, through the use of MALL applications, foreign language learners can develop all linguistic competences and skills in the same level and degree.

Hence, as Burston assumes [23] "the future of MALL lies in the exploitation of the communication and multimedia affordances of mobile devices in ways that support collaborative, task-based learning both within and outside of the classroom".

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