

Quality of sms-learning as a rapidly growing m-learning mode for foreign language learning

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ABSTRACT

m-learning breaks away with the traditional education by focusing not just on developing mobile applications but also sms-learning (using regulated text messages) which is useful and engaging for learning English. Yet there is little research on the quality of sms-learning. In this paper, we view m-learning as an ever-present opportunity for learning in what Stead (2012) describes as today's blurred boundary between work and play. A service platform provider, the National Mobile Company of Iran, has enabled several private service providers (SPs) to use text messages for educational purposes. A contribution to the field is integrating theories of linguistics and m-learning. While learners benefit from extensive reading practice at their own pace (Day and Bamford, 1998), the four elements of m-learning proposed by Ray (2004) is a basis for measuring quality. The data comes from semi-structured interviews with three important SPs with 268 active subscribers to their English learning services. An survey was also conducted on the views of over 120 users on pros and cons of these services which found that although sms-learning is very engaging with informal tasks that impact learning (as theorized by Cross, 2007), it has to meet several challenges (e.g. meeting various requirements of learners and learning context, administrative hurdles/costs) to respond better to the users' expectations and learning needs. The quality is concluded as average because the services provided by the SPs were not strong in terms of personal sphere and context sensitivity although they were satisfactory in terms of efficiency and providing interaction.

Author Keywords

m-learning, sms-learning, Learning English, Time-on-task principle, Service Providers, Mobile users

INTRODUCTION

In line with the fast pace of change in the current world, the use of modern technologies for education is both welcome and essential. m-learning as one of these technologies is increasingly catching the attention of people in the learning market, especially in Iran where the need is felt to deliver English language lessons on mobile phones to large parts of the population. Terms like text message and sms are used interchangeably throughout this paper, as with user and client. The use of text messages for language content delivery is not something new, e.g. text messaging for vocabulary practice/quizzes (See Levy & Kennedy, 2005), and mini-lessons (See Thornton & Houser, 2003; 2005). Other modes for m-learning, e.g. the mobile apps, have limits. They require deliberate attention and sufficient time set aside before logging in while reading and answering text messages may take only seconds. Another challenge Stead (2012, p.3) refers to is how to develop a mobile application once that will work on all phones. In sms-learning, however, all users simply activate a registered service once to guarantee constant and manageable flow of learning through follow up messages sent daily to them on various topics, e.g. learning a daily dose of vocabulary, engaging with language quizzes, following story episodes or grammar mini-lessons, as well as updates on language-related events, etc. The constant flow of learning content enhances users' motivation to learn an otherwise inaccessible foreign language and busy adults still find plenty of 'dead time' these days to invest in what Stead (2012) calls 'just in time' and 'as and when necessary' language learning using their own personal technology. Educational and linguistic theories emphasise the amount of exposure to learning input, or 'time-on-task principle' (Reber, 1993), aimed to be maximized by the services in a country with penetration rate of mobile phones up from 91.2% in 2011 to 115% in 2013. We know that mobile phone technology is so common and easy to use, and familiar to people which is an advantage in Asian/African countries compared to places like North America (Mottlick, 2008). Most African m-learning initiatives took place in South Africa, e.g. MobilED or the one in Rhodes University (Barker et al. 2005), with Eastern African nations coming second, aiming to compensate for the negative effect lack of technological development had on their countries. The potential of using sms for learning is evaluated for sub-saharan Africa (Traxler and Dearden, 2005) but Iran seems to be an unexplored place with the big potential stated before. Yet, the quality of what sms-learning services promise is open to question. Quality also depends on answering the needs and motivations of users. Various play motivations may be at work to encourage users to follow up messages (Nygren, et al. 2012), one of which is using technology itself. Beutner and Pechuel (2012) suggest that successful implementation of m-learning depends on the ultimate acceptance of satisfied users. In this regard, Rey (2004)

lists four key elements of mobile services for m-learning, as shown in Table 1. The elements described in Table 1 can be taken as a guiding principle for evaluation of quality of service that also meets users' expectations and needs. Figure 1 illustrates the sms-learning system in this study with a mediating middleware between content provider and sms-centre.

Key element	Description
Efficiency	Good learning opportunities at different locations
Personal sphere	Good learning in the personal environment of the learners
Interaction	learner-learner, learner-teacher and learner-databases connections
Context sensitivity	to analyze information environment of the learner (situated learning)

Table 1: key elements of mobile services for m-learning (Rey 2004)

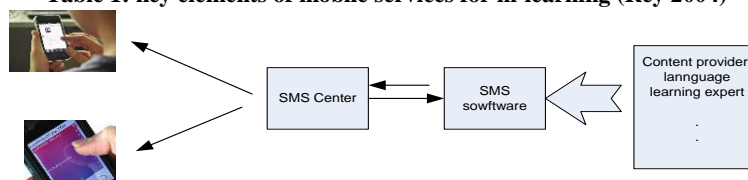


Figure 1. The structure of sms-learning system in the study

AIM AND RESEARCH DESIGN

The purpose of this article is to evaluate the quality of sms-learning as the most rapidly growing form of mobile learning in Iran. The main objective of this research is to find out which issues are addressed when decision makers responsible for sms-learning are reflecting on the acceptance of users concerning the benefits and challenges of their services and how they evaluate progress in the education provided. Thus, the managers of three Service Providers (SPs) were interviewed and 120 of their 268 active users also took part in a survey asking the same questions in a sms survey and they answered in text messages.

The interview questions were an adaptation of the questions used in the study by Beutner and Pechuel (2012). The interviews begin with general questions about learning with mobile devices and shifts to specific problems, concerns, benefits, and challenges of the sms service, as well as users' expectations and feedback. The eight guiding questions that triggered the interviews and used in sms survey were as follows:

- What is your field and how do you come to know m-learning for learning English?
- In general, which role will learning with mobile devices play in the near future (next 5 years) and for your progress?
- Which advantages do you see in learning with mobile devices, esp. with the service you subscribed to/offer?
- Which disadvantages do you see in learning with mobile devices, esp. with the service you subscribed to/offer?
- How do you evaluate the acceptance level of users of such mobile learning services, e.g. do you see it fit for purpose?
- Do you see the un-subscription procedure of the service clear and fair enough?
- Do you see the privacy policy of the service clear and fair enough?
- Which topics/threads on the services you find more useful for learners/yourself?

As shown, the guiding questions had two formulations to suit managers and user participants. The identity of the participants is treated as confidential and pseudonyms are replaced (SP1, SP2, SP3 for the three participating firms) to secure their privacy. The duration of each interview was about 20 minutes.

RESULTS AND DISCUSSION

It is evident from qualitative analysis of interviews that acceptance of users is not as high as SP's expectations and targets, probably due to the fact that learning through mobile devices is still a new concept for users and most decision makers are hesitant how to design and implement the learning content according to the new approaches. The statements of the SPs and users reveal advantages, disadvantages, and expectations related to the use of sms for learning languages. The results of interviews with three SPs and the users and their answers to the guiding questions are summarized below.

What is your field and how do you come to know m-learning for learning English?

The data shows that SPs came to know this field as web programmers and text message service providers who looked to expand and innovate in education. The users become familiar with these services through exhibitions and conferences (e.g. ELECOMP, Education Fair) as well as advertising (e.g. text message, word of mouth).

In general, which role will learning with mobile devices play in the near future (next 5 years) & for your progress?

SPs split on this issue. SP2 deem it impossible to predict the future given the rapid advancement of technology but other SPs hope that the service becomes increasingly popular as the awareness of them grow among people. From the answers in the survey, the general trend was to see it as a growing field.

Which advantages do you see in learning with sms, esp. with the service you subscribed to/offer?

The advantages mentioned by SPs are similar to those mentioned by users, with the most recurring ones as convenience, privacy, cost-effectiveness, accessibility, etc. The SPs expressed that they are impressed with the popularity of learning a foreign language and all had a language advisor who took the initiative and/or designed and prepared the material in

different levels. For users, in order of importance, the prospect of freedom in timing and location as well as a low cost compared to language schools were their driving force.

Which disadvantages do you see in learning with mobile devices, esp. with the service you subscribed to/offer?

SPs were rather conservative in expressing the inadequacies of their services. SP1 mentioned challenges and mistakes in timely or prompt communication of text messages, which is beyond their control. SP2 mentioned the administrative costs of securing the necessary 'permits' and surcharge charged by the government agencies in tax and costs that makes implementation of some services/courses unprofitable. SP3 said the main challenge is the high costs of advertising. The users diverge in this regard and mostly expressed their discontent over erratic format and timing of messages being sent. They also explained that many of the messages are not geared to their level, usually too easy and sometimes too difficult.

How do you evaluate users' acceptance of such mobile learning services, e.g. do they/you see it fit for purpose?

The users explain that their acceptance level depends on a number of factors, e.g. if the admin is available for any follow up question they may have and if the language content is proper for their level and sent out to them at their preferred time. The SPs rate the acceptance level on successful advertising in exhibitions which gives them an opportunity to justify the use of their services. SP2 claimed 50 percent of the people targeted and engaged with in the last exhibition became their clients now. Another SP3 did an opinion poll on their service satisfaction level from 562 previous and existing users and came up with the results that 311 users were highly satisfied, 109 were satisfied, 73 were neither satisfied, nor dissatisfied, and 69 were dissatisfied.

Do you see the un-subscription procedure of the service clear and fair enough?

The answers were a resounding negative. This is one of the most common complaints of users, as being neither clear nor fair. Interviews reveal that no SP had a clearly written and implemented un-subscription policy, unfortunately.

Do you see the privacy policy of the service clear and fair enough?

All SPs expressed their utmost commitments to user rights and privacy but their privacy policy was not well-written, was not clear and comprehensive.

Which topics/threads on the services you find more popular/useful for learners/yourself?

SP1 found story episodes and vocabulary quizzes are the most popular. For SP2 and SP3, introductory vocabulary and film vocabulary and expressions attract the highest number of users. There is no notable discrepancy between the opinion of the users and SPs in this regard.

Service Provider codes	No of active users	No of active services registrations	No of available services
SP1	27	37	6
SP2	132	160	10
SP3	109	140	8

Table 2: profile of users and services in study's 3 SPs

The semi-structured interviews allowed a discussion beyond the questions to address some relevant issues, a summary of which follows. Primarily, it became clear that decision makers still consider m-learning as just a new framework provided by mobile technology for the same learning methods and material traditionally used in their language schools, an observation in line with the results of Beutner and Pechuel (2012). The statements of SPs are revealing this, e.g. SP1 considers it easy for students "to ask the provider to shift the users up and down the predetermined levels or ultimately unsubscribe if learning level is not matching because we have prepared them according to our existing courses". Also, SP2 compares their provided lessons with in-class lessons with no adaptation for m-learning mode as "lessons are designed based on the curriculum of the language school they are running". Nonetheless, SP's finding the learners' appropriate level of learning content is essential but remains the most common complaint of users. The SPs have not taken effective steps towards integrating the novel educational approaches with m-learning that can individualize learning content according to learners' needs and preferences. Awareness of these issues, as Beutner and Pechuel (2012) suggest, remains a challenge in developing the appropriate methods and content and to provide useful feedback about their products' functioning. The same authors also mention a typical uncertainty on the part of decision makers in gauging the effectiveness of their services. This situation is observable in the present study which highlights the need for more reflection and training to move the implementation of m-learning from infancy to maturation. The uncertainty is traced to be deeply rooted in SPs' unwillingness to broaden the prospect of their service by integrating sms-learning into the range of current m-learning approaches. However, they expressed willingness to expand services with the help of a linguist who can find the levels by relevant theories and mobile network professionals who can provide a problem-free setting for it. Although SP's point to cost efficiency due to high costs of technology and content preparation, the users' main complaint was that their expectation of individualized learning content is not met. Finally, referring to the Rey's (2004) framework, quality can be reassessed as high general efficiency due to good learning opportunities at different locations. However, personal sphere of the learners is largely neglected and little learning takes place there. There is an acceptable degree of learner-learner, learner-teacher interaction but no learner-databases connections. The sms-learning services we encountered do not analyze information environment of the learner, and therefore score low on context sensitivity.

CONCLUSIONS

Independence from location and time and information access are the most significant factors that attracts people to use mobile and sms-learning services. Yet, the modern devices still heavily rely on the traditional approaches to education and few decision-makers are skilled to draw out the potential of m-learning to accommodate modern methods. They do everything to reach out to more people, if administrative hurdles and costs allow them to. At present, sms-learning needs to make individualized learning a cost-effective reality. It is essential to bear in mind that this study only shows the present situation in Iran with a rapid growth of sms-based learning compared to other forms of m-learning which indicates the inclusive advantages of this mode (i.e. practical for educators, profitable for planners, motivating for learners). The interviewees highlighted factors like saving money, quick and convenient way of learning in small daily steps which they agree is better than a one-off intensive course with high demands on time and costs. However, the learners' diverse preferences, interests, and circumstances (i.e. various locations, budgets) should also be addressed as the function of mobile technology in different countries varies. Thus, further and similar studies are required to see if these results hold wider in the Middle East or globally. It would make sense to repeat the interviews with more users and SPs and every year to see how the acceptance level for sms and m-learning may change over time. It is also important to study sms learning in light of other new technologies used in m-learning to be able to see a larger contribution to improving the education quality. The tools used in this paper attempt to put mobile learning in a wider context as (Traxler 2007) explains. As a development prospect for future, the authors of this paper aim to employ location-based mobile learning framework in which learners, location, time and mobile device are employed in services. Having various contexts available enables delivery of more appropriate learning contents to the learners. The quality can be concluded as average since two out of four elements of Rey's (2004) framework were addressed by the SPs here. Finally, we propose that learning preferences, processes and experiences should be fed into a context-aware learning service. Focusing on user profiles, preferences, and learning styles of users will further personalise learning experience of users and thus more beneficial to their progress as it is closer to their hearts and responds better to their needs. As a first-hand account of a project, this paper is open to discussions to address the possible caveats and opportunities for follow-up studies.

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