Challenges for Mobile Learning -
Designing for Learner Generated Authenticity

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Abstract
In this paper, we describe a project on Mobile Assisted Language Learning for adult second language learners. The project has designed a mobile learning environment that supports collaborative production and sharing of learner generated authentic content. The project is in a pilot phase and the paper reports the preliminary findings which indicate a high level of learner ownership, engagement and motivation.

Keywords
Mobile assisted language learning, authenticity, learner generated content, designs for learning, lifelong learning

1. INTRODUCTION
One of the big challenges for second language learning is how ICT and mobile media can be used to mediate or create connections between the formal classroom setting and a more informal learning environment (Bo-Kristensen et al. 2009). In second language Danish learning, it is important to create a connection between, for example, the teaching of Danish and a real life setting as reflected in the environment where Danish is being used. A keyword in second language pedagogy is authenticity (van Lier 1996), since the communicative appropriation of language must draw on the authentic and experiential input from the real life of the learners.

In adult education and lifelong learning, authenticity, relevance and meaningfulness are key factors in the learning process (Jarvis 2006). Most Mobile Assisted Language Learning (MALL) until now has focused on delivering content (Kukulska-Hulme, A., and Shield, L. 2008) rather than having the learners engage in using the mobile media to collaboratively produce and share their own content.

Even though there is relatively easy access to the use of ICT in second language learning, the reality is that it is rarely fully integrated in the formal learning environment.

Therefore one of the challenges in second language learning is to identify effective ways of using new media, including mobile media, to acquire relevant and authentic language. (Bo-Kristensen et al.2009). Mobile learning may afford a broader perspective on how to involve the learners in authentic productive activities. It may also raise a number of questions concerning the design of the learning contexts, the affordances of the mobile media (Gjedde 2009), as well as the competencies needed by the teachers and learners in order to take full advantage of the learning potentials of the media.

The production of meaning in language learning is a key issue, which may not always be supported by language learning based on rote learning designs or one-way communication. Authenticity in second-language learning is usually defined by the teacher through the learning materials that are employed. But using mobile media allows for learning designs that provide support for user generated authenticity in the learning situation. David Hull argues for the importance of contextual learning that :
"According to contextual learning theory, learning occurs only when students (learners) process new information or knowledge in such a way that it makes sense to them in their frame of reference [....] This approach to learning and teaching assumes that the mind naturally seeks meaning in context--that is, in the environment where the person is located--and that it does so through searching for relationships that make sense and appear useful." (Hull 1993) Lave and Wenger (1991) suggest that learning is a social process situated in a specific context, and that the learning environment and social setting is crucial to the construction of knowledge in what they term communities of practice.

The hypothesis of the project, which we will present and discuss, is that the process of language learning is supported by being centered in a context that is authentic and provides relevance for the learning of the language. Furthermore it is argued that a learning design that provides for learner generated authentic content provides ownership and ensures the relevance that can strengthen the learning process in terms of motivation and engagement.

2. BACKGROUND
There are different ways of looking at the connection

between the classroom and the outside world. In second language learning and teaching, teachers try to create a connection between formal classroom activities and the informal activities that students use in their everyday and workplace environments. This is discussed in Bo-Kristensen et al (2009). The use of mobile devices can be understood as mediating artifacts bridge the domains. Second language learning research uses learning theory inspired, e.g., by Atkinson (2007) In general second language learning research several models are offered: information- and system theory-based, hermeneutically- and phenomenological-based models .These models have 3 central processes in common (Bo-Kristensen et al 2009):

 1) Prior knowledge, 2) Attention and 3) use.

3. PROJECT AIMS AND DESCRIPTION

Throughout Europe, there is a need for skilled workers. This is also the case in Denmark. Today, many of these come from other EU countries. They need to to learn Danish and acquire knowledge of Danish workplace culture in order to function well and efficiently in a working day in the company. There is need to think in new, flexible ways to train these employees in the best possible manner. Often, companies find it difficult to do without staff leaving on in-service training in a busy weekday. And it can be difficult for educational institutions to offer targeted in-service training for individual enterprises. Therefore, there is need to think in flexible (mobile and Internet-based) practice-learning training where students can learn in groups across companies.

This paper is based on experiences from an ongoing m-learning project. The project is a three-year (2009 - 2012) project on Mobile-Assisted Learning financed by the European Social Fund program, and involves educational institutions and companies in Region South Denmark. The project aims at developing innovative and growth-enhancing mobile assisted training for employees of small and medium sized enterprises (SME). Future, globalized labor markets require constant development of employee skills. In Region South Denmark, there is a number of educational institutions that can provide highly qualified language courses. But educational institutions as well as enterprises are very aware that life-long learning is closely linked to when and where learning can take place. This is because the enterprises may find it difficult to do without employees for longer periods of time. Furthermore, there needs to be effective links between what takes place in the informal learning environment and what is needed in the work-place in practice. In relation to these issues it is the aim of the project to explore, design and implement mobile based learning scenarios. As a point of departure we have based these scenarios on the design of different types of activities.

We have defined three types of activities in the design for learning with mobile media. (Fig.1)
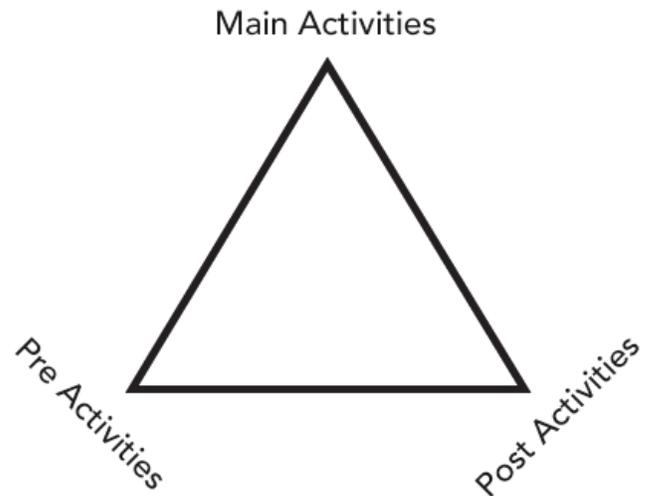

Fig. 1. A preliminary model of learning activities

The "Pre-activities" includes establishing a joint framework for the learners, based on their prior knowledge of language, in a formal classroom setting where the students have a dialogue on the theme, and are being prepared for how to use the mobile to record situations from their everyday and working life, using the facilities of the mobile for voice, video and text recordings. They are also instructed on how to upload it to the dedicated project server, which makes it available for fellow learners and the teacher. The main activities consist of "research" into work-life language and language situations, where the mobile is used as a source of registering phenomena. Also it involves communicating these phenomena via mobile media to fellow students and the teacher, with the focus on establishing the learners attention. Finally, post-activities take place in the formal classroom (or the extended net-based classroom) where students get at chance to reflect on and use the phenomena registered by the mobile phone.

4. METHODS

The project is at a pilot stage, and is being developed in close collaboration between educational providers and enterprises, and involving researchers in the design and reflection process. Partners in the project include 4 language course providers, a university and private enterprises. Until now, one pilot course for teachers and two pilot courses for students have been held. An action research approach is employed, in which the ten teachers who are involved in the project, contribute to the development of the educational design as well as making observations and reporting back. There are also two

ethnographical studies of the groups of students using the mobile devices, that are fed into the design process.

5. PRELIMINARY RESULTS

Returning to the issues of learner generated contexts and authenticity in relation to mobile lifelong learning scenarios, we will point to some preliminary findings: Based on the observations from the teachers, one of the interesting points so far is that they report on having observed much higher levels of motivation, engagement and ownership by the learners, and relates that to the learners own registration and production of authentic learning materials that are distributed among the community of learners, using the server.

However, the positive impact of this learning approach seems to be linked with the background of the learners and the competencies of the teachers in relation to engaging the learners in the production of authentic materials.

The project so far has produced learning scenarios using mobile media production as a means to learner generated contexts and authenticity in second-language learning, and to produce material to situate conversations.

An important factor in this has been the development of tasks that engage the learners in authentic productive activities. The project has developed dual platform supporting mobile as well as PC access, in order to provide access for learners and teachers in the most appropriate manner. The aim of using the mobile in the learning situation is to provide a resource that enhances the motivation for the learners to explore their own authentic language usage in the context of their working place.

The project has developed a dual PC- and mobile-based platform. The aim is to provide access for learners and teachers to produce and read on the most appropriate platform at any given time. The intent for integrating the mobile is to provide a potentially engaging learning tool that is supposed to strengthen the motivation to explore the learners` own authentic language practice in a work context.

For some learners and teachers, the PC-platform is a more appropriate way to prepare and process tasks and produced materials. The PC-platform is meant to be used supplementary to the main activities, to explore and register the situations and artifacts which the target language is linked to.

There are different types of tasks which are all distributed via the platform, which also allows for interaction between the learners and the teacher.

An example of a task is for learners to find and document three warning- and safety signs at the enterprise where they work, and to upload them to a joint gallery for the class.

The learner has a couple of days to choose the signs from a variety at the working place. Then, there is a processing of a language content in relation to the learners own production of photos, as well as the total class production. This can, for instance, be done through commentaries to the photos.

Another example of a more open task would be to ask the learner to take 3 photos or produce 3 short video-sequences (30-45 secs.) from their working environment.

While the process is similar to the previous task this type of task provides possibilities for more personal choice and creativity. The learner can choose to see the fellow learners` productions (video, photo and text)via the mobile or the PC-platform. Especially at the beginning of a mobile-based course it can be an advantage to access the photo/video gallery via the PC-platform, which provides a greater overview. Both task examples represent a learning-design in which the learner produce authenticity - that is authentic content as well as authentic, relevant and meaningful learning experiences.

At the same time the mobile-based courses represent a way of creating connections between the formal and the informal learning environment. In this way the learner mediates across environments using the mobile technology, in a process of genuine collaborative learning.

6. DISCUSSION

One of the questions this project raises has to do with whether this approach to learning design actually has affordances for creating an experience of greater authenticity for the learners. This approach has to be related to the competencies of the teachers in relation to offering relevant linguistic themes and tasks, depending on the background and prior knowledge of the learners. While the teachers already generally possess competencies regarding evaluation of learners and personalization of their teaching, combining it with a learner-centered approach calls for further development of skills and competencies regarding the special challenges that designing for mobile learning activities poses. Especially, when designing for productive activities one has to bear in mind the teachers` and learners` roles and competencies towards the staging and evaluation of the production of authentic content.

7. CONCLUSION

Returning to the issues of authentic learning, learner diversities and teacher` competencies in relation to mobile lifelong learning scenarios, we will suggest some conclusions based on the preliminary results. The project is developing a design for learner generated authentic content, in order to support the process of life long language learning, and engaging the learner. Furthermore, this approach seems to support the ownership of the learner and provides the needed relevance of the material.

We developed a learning design using three different types of activities and in the pilot studies found that the

motivating and engaging qualities of using the mobile media as a mediating and productive tool were prevalent.

Further research in the project will address issues relating to the design of the mobile learning environment in order to enhance the affordances for learner generated authentic content.

Further research will also address the issues of which teachers` competencies are needed, in order to stage and evaluate the learning process of a very diverse group of learners.

This learning design offers a framework for the learners in which they can produce authentic materials that are relevant. In traditional second language teaching , authenticity is mediated by a teacher using linear media. The concept of learner generated authenticity using mobile media is very promising in relation to developing engaging learning designs for new media.

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