Bring your own device to language class – applying handheld devices in classroom learning

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Abstract. Language students often struggle to understand the logic in foreign language grammar, reducing their ability to reproduce and create texts on their own. There are several reasons for this; everything from the methodology to lack of motivation might influence the situation. Since the 1980's, Computer Assisted Language Learning (CALL) has become one of the fastest-growing areas of development in language learning and teaching. Several point to new technology as a great possibility in the area of language learning. Can new technology available to practically all students enable them to improve their understanding of the logic behind languages? An alternative to the traditional ways of teaching grammar could be to focus "on the advantages provided by technology already available, [... and] on how the teacher should utilize the fact that more and more students [...] are bringing their own devices to class. There are certain advantages provided by usage of mobile technology in class that are difficult to achieve in other ways, like anonymity, engagement by all of the students, peer learning effects" and several others (Talmo & Einum, 2013, para. 3). This paper will provide methods, introduce a new software designed especially for the purpose and try to explain why and how this could improve grammar teaching in foreign languages.

Keywords: BYOD, EFL, logic, web application.

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How to cite this article: Talmo, T., Einum, E., & Støckert, R. (2014). Bring your own device to language class – applying handheld devices in classroom learning. In S. Jager, L. Bradley, E. J. Meima, & S. Thouësny (Eds), *CALL Design: Principles and Practice*; *Proceedings of the 2014 EUROCALL Conference, Groningen, The Netherlands* (pp. 352-357). Dublin: Research-publishing.net. doi:10.14705/rpnet.2014.000244

1. Introduction

When it comes to foreign language teaching (FLT), innovations in technology have not yet been sufficiently researched, although the use of multimedia computing, the internet, language laboratories and other technology has become common in classrooms all over the world (Chapelle, 2001). This is mainly due to the assumption that new possibilities of language learning through the internet and other computer interfaces are just a new form for already established approaches and methods. It seems that the most popular method of CALL in FLT is to let traditional exercises and activities (albeit communicative, grammar-based, etc.) be copied/pasted into a digital format, with the advantage of distance learning, faster distribution to students and the possibility of students working faster through the materials. CALL now handles a wide range of activities that exceeds these traditional activities, including listening, reading and writing skills.

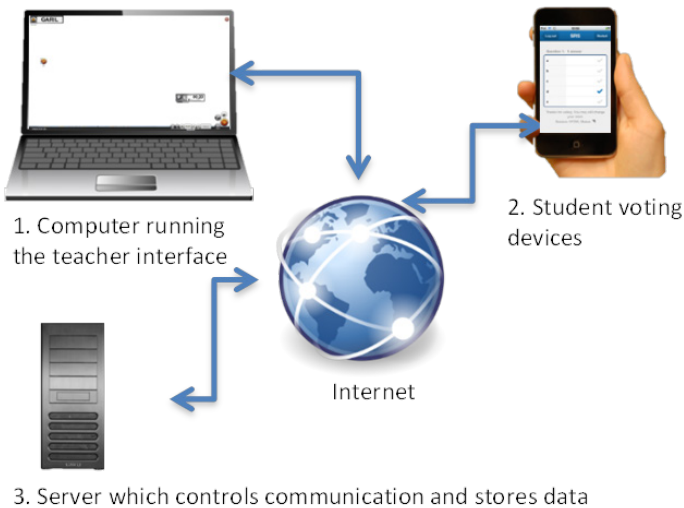
One of the most modern innovations in CALL is the introduction of handheld devices like smartphones, which in many ways transform the learning and teaching processes, among others, through enhancing learners' autonomy by enabling students to acquire skills at their own pace (Kukulska-Hulme, 2010). According to Chapelle (2001) it has been suggested that the extended research of technology and its role in FLT methodology could provide understanding in the debate on the role of classic grammar-based education. Could it, however, also be possible to help students understand the logic of how language works by utilizing modern technology and a new approach towards language training? This is what the LLP Comenius project, named "*Identifying the Logical structure of languages by use of new Interactive mobile services, new diagnostic training methods for development of Key competences, and new Evaluation methods introducing assessment for learning practices*" (iLike) (Stav & Talmo, 2014), aims at investigating.

The activities in iLike will allow the students to construct their own knowledge of language through collective, creative peer learning problem-solving processes. iLike targets English as a foreign language (EFL) and specifically looks at English verbs. This highly important and consequential area of grammar is already being grappled within EFL education, and iLike seeks to provide a tool which is easy to apply to this process within the existing methodological framework of the subject. However, the project also provides an alternative software and method which makes the students actively analyse their initial assumptions about language and, mobile devices in hand, be instrumental in the construction of their own understanding of language and language structures.

2. Method

iLike consists of two parts; a new methodology and a software designed especially for the purpose of grammar learning. The software includes a teacher and a student interface, running as a web-application (Figure 1). The teacher runs the system from a laptop and the students use some kind of handheld device in order to submit their answers.

Figure 1. The components of the software in iLike



Utilizing the student's own handheld devices allows for a seamless and cost effective way of bringing interactive technology into class. With the software developed through iLike, the students will be able to do three things: 1) move words around on the screen to create new meanings and build correct sentences, 2) look into different possibilities according to the choice of verbs in the sentence (i.e. synonyms, negations and compound verbs), and 3) choose the correct conjugation, both according to tense and numbers.

iLike focuses on involving the students in the learning process, and reversing the way students learn rules of grammar. Instead of providing students with a rule, giving them tasks to drill that rule and correcting them afterwards, the consortium presents a case in which the students work, manipulate, discuss and self-assess their solutions before the teacher corrects and/or provides them with the correct answer. In addition to teaching the rules, this raises cognitive awareness within the students about the way we create language, and makes sure that the students

are more capable of producing and reproducing meaningful, fluent and correct sentences/texts in the future.

3. Discussion

The big advantage of utilizing handheld devices in the classroom is the opportunity to get more voices heard on the same question. iLike aims at finding and developing good ways to involve all the students and the teacher in the same process. The most obvious advantage with the methodology is the possibility to let all students feel responsible, by commenting on the results and easily use the submitted answers in new tasks.

Another advantage is the anonymity handheld devices provide. In bigger groups, students are often hesitant to ask questions, answer or indicate in other ways if they have understood what the teacher is talking about. With iLike, all students can participate without fear.

A critical element of learning is collaboration, both in a teacher-student relations but also between peers. According to Vygotsky (1978), social conversation and interaction is the basis for learning in a socio-cultural perspective. Danaher, Gururajan, and Hafeez-Baig (2009) propose an m-learning framework based on three key principles: engagement, presence and flexibility. In this framework, in-class activities are ideal and promote collaborative work. However, this is often difficult to pursue when it comes to grammar learning. With iLike, the students will have immediate access to what the group as a whole has answered, thus preparing the ground for an actual discussion about different solutions to the tasks. This will create a metalanguage about grammar which can help students in their understanding of the logic in languages. More and more, researchers acknowledge mobile tools like social networks, instant message apps and mobile voting systems, like the software built in iLike, as efficient in classroom language training (Dudeney, Hockly, & Pegrum, 2013).

The software in iLike is designed in a dynamic and flexible way, making sure that it can be easily integrated and used for more or less all the tasks a teacher could want. This ensures a possibility to precisely target every group, no matter their level of competence.

Using the iLike methodology, the students will get a sense of being involved and heard in the learning process/environment. Previous studies performed at Sør-Trøndelag University College (HiST), Trondheim, Norway confirm the effects of

collaboration and use of handheld devices in classroom activities (Talmo, Sivertsen Korpås, Mellingsæter, & Einum, 2012).

4. Conclusions

It is too early to conclude anything from the results obtained so far. It seems like iLike can function as a positive and engaging alternative or supplement to the more traditional grammar teaching in EFL. There are still some issues which need to be solved; the most important one being how to make it possible to differentiate the tasks given to the students. In the target group, the students are on very different levels, and the most talented students have a tendency to get bored when the task takes too long and they have already solved it. This is something that forces the teachers to direct these students to the textbook to solve extra tasks. The consortium is currently working on a way to stack and save tasks inside the software to make it easily accessible for the teacher, creating a more dynamic way to differentiate when using iLike.

iLike is considered as a first in the field of language education. In this project, the focus is on grammar, and more specifically, verbs. It is foreseen that the project could evolve and that the software could include possibilities for targeting more areas in FLT; more word classes, listening exercises and extended writing possibilities.

More and more students own some handheld smartphone, iPod, iPad or similar. Teachers and the educational system should be ahead of the development and utilize this technology. Digital literacy includes creativity and innovation not only towards new technology and systems, but also towards new methodology that actually takes into account the possibilities the new technology brings with it. It is easy to see ways of using technology in order to learn languages, but until now, this technology is mainly created with the idea that the individual can use it on their own, not in a creative process with others. The available systems for language learning to date were mainly produced to digitalize tasks and cases the students could just as easily have done with pen and paper. iLike focuses on creating variations to this way of thinking about language training, and aims to overcome the barrier that many students sense when it comes to understanding the logic behind languages. iLike is also an innovation when it comes to student response systems, opening for text response questions and answers which are easy to utilize in a training session.

iLike starts with EFL, drawing on already existing open source databases, but the software will be created as a language neutral service, meaning that it should be

possible to look into both different languages as well as different word groups like nouns and adjectives in the future.

Acknowledgements. These results have been obtained with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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