CREATING AN ONLINE ORAL LANGUAGE LEARNING ENVIRONMENT: SPEAKAPPS

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Abstract

Learning to speak a language presents a major challenge for language learners in face-to-face, blended and distance education. Ongoing challenges include practical concerns of providing adequate time for practice and feedback to learners who are engaged in oral language production and interaction in formal acquisition settings. These issues are further exacerbated when trying to facilitate authentic language interaction by the ephemeral nature of speaking and the situatedness of language and language practices as a complex dynamic system. A major collaborative CALL (computer assisted language learning) project, SpeakApps aimed to develop an open source techno-pedagogical solution to facilitate online oral language production and interaction. This paper presents and discusses the outcomes of this project. Results from a survey of learners undertaken as part of the project as well as insights from teachers are provided. These findings informed both technical and pedagogical development within the project. The paper concludes by considering the wider implications of the project in the development of language learning environments.

Challenges for Online Language Learning and Oral Production

Many of the challenges facing online language learning are not unique and could be considered as challenges facing online learning in general. These challenges include concerns about the efficacy of technology to facilitate learning, the lack of training in using technology and the development of appropriate infrastructure. Various studies in the CALL literature assert that learning facilitated by technology is as effective if not significantly more effective than traditional instruction (Grgurovic, Chapelle, & Shelley, 2013; Sagarra & Zapata, 2008; Zhao, 2003; Yun, 2011; Taylor, 2006, 2009). In spite of this, the efficacy of delivering or developing online language learning remains an issue, although Garret (2009) suggested that the underlying anxiety is linked more to the cost of provision and investment in CALL specialists and infrastructure rather than pedagogical considerations. Further to this, appropriate training in the use of technology and the design of online learning activities is not always available or engaged in (Brandl, 2002). Empirical findings suggest that learners require a period of time to adapt and to grow accustomed to the online environment (Sagarra & Zapata, 2008). To facilitate this adaptation, it is essential that the integration of CALL into language learning (Garret, 2009) is underpinned by sound pedagogy.

Language skills are broadly divided into four areas; writing, reading, listening and speaking. In the online environment Appel, Santach and Jager (2012) contested that the emphasis within online courses is usually placed on the first three of these

skills. Developing oral language competencies of learners is acknowledged as being particularly challenging independent of the learning environment. These challenges include practical concerns of providing adequate opportunities to produce language in the first place, i.e., speaking in formal learning or acquisition contexts and to provide feedback to students. The ephemeral nature of speaking makes it difficult for language learners and indeed teachers to ensure that systematic progress is being made in the language as both are reliant on memory of what was said (Wells, 1999). Another complication associated with language learning is the range of opportunities available for learners to practice a language beyond the classroom (Gardner, 2001).

In the case of lesser-used languages this is particularly the situation. Furthermore, the use of authentic materials in the learning process (linked to the provision of meaningful language interaction opportunities) is particularly important (Brandl, 2002) when learners have limited opportunities to produce the language outside of the formal acquisition environment. Authentic materials provide learners with the opportunity to fulfil a social purpose in the language community for which it was intended (Grellet, 1981; Lee, 1995; Little, De-Vitt, & Singleton, 1989). Task-based approaches can incorporate the use of these materials in the target language and guide leaners to practice a language with respect to real life experiences and scenarios. Furthermore, designing context driven tasks provides language learners with an opportunity to consolidate language meaning from context which in turn can lead to deeper understanding (Ellis, 1995). Language learners who engage with authentic assignments and technology are reported to have increased their literacy skills (Kasper, 2000) and their motivation to communicate, and they have also cultivated a positive attitude toward the learning experience (Gu, 2002). This pedagogical approach to language learning and the notion of task advocated within the SpeakApps project is closely aligned to action-oriented approaches to language. Such approaches are derived from sociocultural and cultural historical activity theoretical approaches to language teaching and learning (see for example Blin, 2010; Blin & Appel, 2011; Blin & Thorne, 2011). These approaches consider teacher and learner agency being at the centre of curriculum and task design (van Lier, 2004; Engeström, 2006; Lipponen & Kumpulainen, 2011).

The SpeakApps Project

The SpeakApps project, funded by the Lifelong Learning Programme of the European Commission was designed to engage with some of the challenges and issues faced by language learners by providing both technical and pedagogical solutions for teachers and learners in the project's target languages. The principle outcome of the project is the SpeakApps platform, www.speakapps.eu. The platform is Moodle based and combines virtual classrooms with the SpeakApps tools, with a Mahara space to support the SpeakApps community of teachers and an Open Educational Resource (OER) to house the task-based language learning activities designed and categorised using the Common European Reference Framework for Languages (Council of Europe, 2001). Further to this, info blogs, technical and pedagogical user-guides and tutorials are available on the platform.

The SpeakApps project adopted an open source policy. Project tools are available for download and are based on the IMS Learning Tools Interoperability specification, which allows them to be integrated into a wide range of existing educational, content and social media platforms such as Moodle and Mahara. SpeakApps pedagogical materials are also openly available. They have been quality assured and validated across and within a number of educational contexts. The SpeakApps classrooms with the SpeakApps tools incorporated in them, were developed based on the paradigm of Software as a Service and make available a virtual learning environment solution to individuals and institutions.

An Overview of the Speakapps Tools and OER

Langblog is an audio/videoblog used for the teaching of oral production skills. It uses blogging technologies to create a Voice forum which facilitates access to audio and video files, easy recording and upload of audio and video files, and interaction amongst group members. Adapted from WordPress, audio and video posts are directly created online by means of Flash, with no program installation required.

Videochat allows for videoconference sessions with up to 6 people, using audio or video. The main principle behind this tool is to facilitate students in opening a Videochat session without the intervention of the teacher. Sessions are recorded and archived, without the need for installing additional software. There are two interfaces: the recorder and the player. The recorder distinguishes itself from already existent videoconferencing systems by its ease of use, recording and archiving. The player's most distinctive functionality is the solo/mute buttons that allow teachers to listen to the group or to a specific learner in isolation. There is no moderator or administrator roles. All participants have the same profile since the tools is designed specifically for language students carrying out synchronous tasks in pairs or small groups.

The *Tandem* tool is a content management system for synchronous oral tasks for language learning. This tool administers complementary contents to students working on a task together in an online synchronous medium. The tool retrieves the user information from the environment (e.g., Moodle classroom, Mahara group) and connects a pair of students to carry out a language learning task. It assigns each student a role (i.e., student A, student B) and hands out to each student different contents belonging to the same task in order to prompt authentic goal-oriented communication characteristics of fill-in-the-gap tasks. The tool is independent of the communication tool used (Skype, adobe connect, Videochat, written chat, etc).

The SpeakApps **OER** is a shared storage facility, providing a repository of activities teachers can access to engage their students in speaking practice. The OER is searchable in many ways and teachers can use results in their existing format or adapt, add to or combine in the most appropriate way for their teaching context. The projects, activities and tasks in SpeakApps OER can be stand-alone

or together. The user can create new combinations from existing projects, activities and tasks currently prepared for in any of the different languages (i.e., English, Catalonian, Swedish, Polish, Finnish, Irish and Dutch). The projects, activities and tasks can be used with the SpeakApps tools. They can also be used with other available tools. Projects, activities and tasks can be exported in a variety of formats, for use with the SpeakApps tools or teachers' existing tools.

SpeakApps Development Process and Tools

A comprehensive review of current practices, pedagogies and tools was engaged in by consortia partners at the outset of the project. This review provided an informative and useful basis by which to guide the development of the platform, tools and learning activities and materials. Pedagogical and technical insights from this review included that a wider range of tools facilitated the creation and sustaining of authentic communication situations and contexts. This was in spite of these tools being designed without language learning in mind. Furthermore, it was found that these technologies facilitated action-oriented approaches to language learning. Building on these insights from the literature and scan of technological environment, pilot and usability studies carried out by project partners established an iterative and cyclical approach to the development and refinement of the SpeakApps tools and pedagogical activities. Feedback from pilots also informed the design of the SpeakApps community and the collaborative OER space. The original approach for this space had been envisaged as providing a facility to allow upload and download of pedagogical materials linked to a community space which then evolved to the development of the wiki based OER which served both as a repository and online editor. Wider validation of these activities was broadened to teachers and learners in other educational institutions/sectors who completed further piloting and usability testing. In total 7,180 learners participated in the SpeakApps pilots. This process of validation provided a unique opportunity for the project into a community of practice. The project also provided online training to language teachers, to facilitate the creation of a vibrant and self-sustaining community.

Learner Insights

A survey of learners was undertaken with the objective of providing insight into: the motivations of learners to learn a language, the social and learning backgrounds of students, the sociolinguistic status of the language, and respondents' technical capabilities and access. Over 815 individuals completed the SpeakApps survey with 73% female and 26% male respondents. Most respondents had tertiary or secondary levels of education, and they predominantly group themselves within the 18-24 age group. Results relating to the motivation for studying the language did not reveal much consistency across the language groups and did not provide particular insight for the project team. Significant prior experience of online/technology facilitated language learning was not evident in responses. The majority of respondents' prior experience of language learning was mainly rooted in traditional or face-to-face formal acquisition environments, e.g., schools and/or cultural centres.

A digital divide did not surface based on language group with nearly all of respondents reporting to have access to the Internet via Wi-Fi, DSL or cable in their home, which interestingly was reported to be the location by which respondents most preferred to study. The use of mobile devices was widespread amongst respondents, and they accessed the Internet using laptops and smartphones alongside traditional computers. Interestingly, for the project team, however, was the reported rare use of webcams outside of the language learning experience. This finding was of particular relevance to the project team in the development of video recording tools as it presented usability issues associated with the prior experience of the users with the technology. The finding is in line with other empirical studies where it was found that a period of time is needed for language learners to grow accustomed to the technology (Sagarra & Zapata, 2008). The finding was also considered in terms of respondents' reported engagement and language experience on social media platforms. Results from the learner survey indicated that their use of social media leaned towards facilitating interactive written skills as opposed to the development of active oral skills, i.e., reading posts and chatting with friends by using instant or web messaging. Activities engaged in on social media that would complement oral skills development, centered on passively watching videos. Facebook remains the social network of choice. The language use of respondents varied within the platform greatly. Respondents considered that social networking websites have the potential for assisting learning a foreign language. A large number remained not fully convinced. Their current use of social media, however, suggested that there is a propensity to develop written as opposed to oral skills within these environments.

A significant finding for the SpeakApps project and indeed a challenge for online language learning environments was identified by the view held by the majority of respondents that the best way to learn a language is to live in a region in which the language is spoken. Additionally, respondents considered that speaking the language with native speakers helps to improve their speaking skills. These findings reinforce the challenge for cultivating and integrating authentic language interaction in the online environment. Furthermore, they present particular challenges to lesser-spoken languages such as Irish, where the numbers of native speakers of Irish are dwindling. Facilitating synchronous interaction in the online environment with native speakers using tellecollaboration might not be feasible. Therefore, in such language contexts asynchronous strategies might bridge this issue. The majority of respondents viewed oral language skills to be generally more important than written skills. However, the acquisition of oral skills was viewed generally as being more difficult in four of the six languages. In Catalan and Irish it was considered that written skills were more difficult to acquire. Interpretation of this finding by project partners was attributed to groups of speakers within these languages having literacy difficulties. A reassuring finding, perhaps for CALL advocates across the six project languages (English, Catalonian, Swedish, Polish, Finnish, Irish and Dutch) was that a large majority of

respondents viewed the Internet as a useful tool for learning a language. Those studying English and Swedish were most supportive of this, while those studying Catalan were not quite as supportive. Drilling down into why this was the case was not teased out within the survey, but it would be interesting to see if correlations with resources and/or quality of resources, online access could explain or provide insight into this finding.

Teacher Insights

Within the project, partners provided insights from their own language teaching practices and were asked to develop vignettes to discover: "What works best?" "What difficulties have you encountered?" " What would you like to see?" These insights provided a practice-based contextualisation for the pedagogical activities of the project but also for the wider integration of technology into that practice. A thematic analysis of these vignettes illustrated that depending on the teaching context (i.e., purely online vs. face-to-face with technology supported, second vs. foreign language) different challenges presented themselves. Teachers reported that oral production and interaction tasks work well when there is a degree of co-operation or group work between learners involved. Oral tasks requiring a degree of creativity or information gaps were viewed to be popular by teachers with their learners. Teachers also considered that learners enjoyed tasks involving reading aloud and/or a combination of reading aloud with a short oral presentation. From a pedagogical point of view it was noted that learners often read from text in there spoken production activities so teachers rarely hear *ex tempore* contributions. This insight was of interest to the project particularly with respect to developing tasks to promote authentic language situations. Teachers supported this in their accounts of practice, and they suggested that learners require a "real" reason to communicate to produce an outcome that is not necessarily linguistic, i.e., suggesting an innate demand for authentic language engagement scenarios.

A further insight for the project was the suggestion that learners can develop a deeper understanding and a more systematic engagement with their learning if they have the ability to access their own recordings along with teacher's feedback. This insight was aligned to addressing the ephemeral nature of language in practice. Unsurprisingly, practical difficulties associated with using technologies were evident in all accounts with issues centring on file exchange and sharing of large files, poor sound quality, compatibility issues and usability issues associated with using packages. Other technical and data protection issues associated to facilitating specific pedagogical strategies such as peer-review and feedback were also identified. In response to technical difficulties, teachers identified the need for simple and usable recording interfaces for students. They contended that language tools required simple and clear functionalities for both learners and teachers, and that learners needed more control and autonomy within their language learning environment.

Conclusion

The SpeakApps language learning platform and tools were developed and informed both by practice, and an action-oriented approach to language learning. The platform and the SpeakApps tools are designed specifically to develop oral language skills. The clear and focused concentration on language learning pedagogy was of significant benefit to the project as it provided a sound framework for development of pedagogical activities and technological tools in the project. The number of pilot and usability studies engaged in and the iterative approach to a learner-centred development process ensured and committed the project to constant improvement. The project partners collaborated with twenty institutions across a number of educational and language learning contexts, which broadened the validity of the pedagogical and technological framework of SpeakApps. Working across this multitude of contexts provided insights both for the technological and pedagogical development within SpeakApps as it exposed the tools and platforms to a range of learners and also to a wide variety of institutional and organisational contexts. Furthermore, the feedback derived from pilots and usability studies provided a further insight into the sociolinguistic status of the language being learned. These insights revised and honed pedagogical strategies and technological implementation of the engagement of language learners with native speakers of the language.

The SpeakApps project survey of learners provided empirical support for an action-oriented approach to language learning – this finding may be of significance to other language learning environments as they develop and refine pedagogical frameworks. Tasks developed in the SpeakApps environment were tested across and within language contexts; these studies provided considerable feedback to the language teachers. A one-size fit for all was conclusively rejected within the project, and task design focused on the facilitation of authentic language experiences for students. A further insight from the SpeakApps project was that language learners demonstrated an orientation in their engagement in social media and other web technologies to develop their written skills as opposed to oral skills. This finding links into previous empirical research which suggests that usability issues of engagement and developing user experience with technologies is a facet of integrating CALL into language learning. This finding bears weight for CALL platforms and technologies focused on the development of oral competencies as learners' engagement with the technologies must be scaffolded. In spite of the proliferation of technologies to support synchronous voice and video communication, the integration of these technologies into activities learners engage in in a non-formal capacity on social media platforms is still at a nascent stage. The use of webcams and oral recording is an element of formal CALL platforms and CALL activities. The SpeakApps project emphasised the application of these technologies based on an action-oriented approach to language learning to facilitate authentic language experiences. The SpeakApps project is currently on-going, having received a further round of funding. The next phase will see integration of a further five languages within the environment and further development of the SpeakApps OER.

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