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Collaborative Language Learning for Professional Adults

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ABSTRACT

Sustainable support for educational development using new technologies in higher education depends on having a basic roadmap that links current demands for developmental support to a plan for ways in which longer term needs will be recognized and met. The growing demand for lifelong learning of a second language is evident within the workplace where new technologies offer flexible solutions. In order to meet the special needs of working adults, the University of Siena Language Center (CLA) has developed a multiple-level series of blended English courses from beginner to intermediate level for both university technical-administrative personnel and the hospital staff of the *Azienda Ospedaliera Universitaria Senese* (AOUS*)*. The pedagogical approach takes into consideration both the needs of adults who are working full-time and the aims of the curriculum, which are to develop the four linguistic abilities of reading, writing, listening and speaking up to the Common European Framework of Reference (CEFR) Level B1. Taking into consideration a constructive use of both teaching hours and classrooms, as well as the limited time available to adult learners, a blended approach was chosen. The face-to-face (f2f) lessons provide activities concentrating on the development of speaking and listening skills. The online lessons provide a collaborative workspace for interaction in the second language and present a flexible solution for working adults who can structure their study time when and where it is most convenient. This paper will attempt to draw several conclusions regarding the effectiveness of blending approaches for lifelong learning of a second language based on both learner and teacher interviews as well as quantitative and qualitative data collection through questionnaires and end of course evaluation.

Categories and Subject Descriptors

K.3.1 [**Computing Milieux**]: Computers in Education – *Collaborative learning, Computer-assisted instruction (CAI).*

General Terms

Collaborative learning, Design, Education, Experimentation, Human Factors, Language acquisition.

Keywords

lifelong learning, learning community, connectedness, blended learning, CMC

1. INTRODUCTION

The University of Siena Language Center was involved in the pedagogic design of the blended English language program that has been offered from January 2006 to the present for more than 800 adult professional learners. During this period, 40 blended courses were completed by university technical-administrative personnel involving more than 500 participants. Sixteen blended courses have been offered to the AOUS medical and administrative personnel in specialized English for over 300 participants. In the online learning environment, *CLA Siena Online*, reading and writing abilities are refined through mother-tongue tutor-guided asynchronous forum discussion activities based on the integration of authentic internet resources for reading comprehension, listening, grammar and vocabulary building. In addition, the CLA WebLingua language resources (Mesh, Zanca 2005) are integrated into each online lesson and consist of carefully selected Internet materials, podcasts and other web 2.0 tools in four ability levels. Laurillard (2007, p. 9) states, "the Web provides very well for the lifelong learner who has *learned how to learn* and has the skills needed to explore and evaluate the multiply-connected network of knowledge in their own and related fields."

Learning how to learn in a blended English course encompasses both language learning and the development of new skills in technologies for online study, peer interaction and collaboration (Knowles 1978). Therefore, aspects of both formal and informal learning are found in the pedagogical approach of this project. Due to the varied needs of adult learners, a combination of several complementary pedagogies is most appropriate for the various elements of this blended learning program. The philosophy of *connectedness* (Goodyear 2005) is closely tied to the context of learning a second language, where connections and contact between peers are necessary for knowledge *and discourse* construction. Collaborative group work has been used extensively in traditional language teaching for decades. The communicative approach for language teaching (Knight 2003) involves small group activities and elements of social constructionist theory, such as the shift of focus from the teacher to the learner and

seeks to meet the needs of various learning styles. The communicative language teacher sees her role as a facilitator of communication, often interacting with learners in ways that are similar to everyday conversation. This collaborative interaction can easily be carried out online in forum discussion, which is an effective means for developing communicative language ability as well as forming a learning community of professional adults. However, the new online environment creates a steep learning curve for those who have never studied online before. In addition to face-to-face lessons involving conversation in L2, which is often difficult enough, learners must participate in small online groups by writing in English, which is permanently recorded, including any inevitable errors. So in the implementation of language learning pedagogies online, attention must be paid to provide ongoing support, clear indications of objectives and learning outcomes in order to avoid feelings of discouragement. (Weller 2002, p. 78).

2. COURSE DESIGN

At this point, we will take a look at several pedagogical considerations that have a direct effect on the design of the blended courses. Connected learning issues are closely tied to the context of learning a second language, where connections and contact between learners are necessary for knowledge and discourse construction. It is useful to point out that interaction in the second language (L2) is critical for language acquisition (Pica 1996) in contrast to individual study of text-based materials. Therefore, a key element of the WebLingua blended courses focuses on guided discussion in which a tutor-facilitated group of students using asynchronous computer mediated communication (CMC) activities promotes collaborative peer interaction. So in this particular sense, interactive learner-teacher and learner-learner support through connectedness in the classroom and online is essential for continuing progress in language learning. The integration of regular CMC forum activities is an effective way to extend the limited time available for conversation activities in the classroom through written and audio interaction in online forums, podcasts and blogs. In addition, online peer interaction activities, if properly implemented, can foster learner independence rather than encouraging a continuing dependence on the instructor, offering the advantage of a more learner-centered approach as well.

2.1 Language and IT Levels

In January 2006, the level of IT expertise for the group of participants involved in the first series of courses for university staff was determined by a preliminary questionnaire completed online. The age group of the participants ranged from 25 to 56 years and the levels of computer, email and internet ability were at a medium to high level although most of the participants had never completed a basic computer certificate course. In particular, only three had previously taken an online course of any type.

A placement test was also conducted in order to determine the language ability of each participant at the beginning of the course. The online placement test consisted of forty-three multiple choice questions based on the knowledge of English grammar and vocabulary that corresponds to each of the three language levels offered. For the first five-month period of experimentation with the WebLingua blended courses, 194 adults completed the placement test and results indicated that 45% of the participants were beginners (see Figure 1, module A), while 29% were at the pre-intermediate level (module B) and 26% were at a lower intermediate level (module C). A placement test is offered once every year for those who express an interest in taking the blended English courses. All participants choose to take the courses, they are not obligatory. Certificates of successful course and exam completion are awarded by the Language Center for each module, which are required for progression to the next level.

2.2 Pedagogical Strategy

Based on the multifaceted needs of adult learners, a combined approach of several complementary pedagogies is most appropriate for the various elements of this blended learning program. Some elements of *instruction* are necessary especially for learners at lower-ability language levels to provide for the development of basic language structures, lexical items and pronunciation, which are carried out primarily through classroom lessons. At the same time, it is useful to keep in mind that instruction should be mixed with periods of more learner-centered activities that build and expand on the points learned though instructional methods.

In particular, the pedagogical approach for adult lifelong learners involves key elements that are inter-related and explained in Laurillard's (2007) *conversational framework* which illustrates the importance of discursive and interactive processes, providing the learner with the opportunity to experiment by putting ideas into practice through interaction in L2. This is closely related to principles of *constructivism,* discussed below. It should be noted that the core concept of *connected learning* is woven into Laurillard's framework for designing online activities and includes 4 processes:

- *discursive process* – dialogue, idea exchange, explanation of concepts
- *interactive process* – task-based experimentation, receiving meaningful feedback
- *adaptive process* – linking or adapting the ideas learned from theory to practice
- *reflective process* – thinking back on the interactive process and feedback in order to achieve the task objectives (Laurillard 2007, p. 3).

This cycle for processing ideas is the basis for the type of complex learning that takes place while developing communicative ability in L2. The conversational framework describes the learning cycle and also represents a principled online teaching strategy in which the teacher foresees learner needs and provides different kinds of support through the way the learning environment is designed. In the context of learning technologies, when the teacher is not present the learning activities must provide what is missing by other means. Therefore, pedagogical strategies regarding the blended English courses for working adults require a mixture of online teaching approaches and types of activities appropriate for a variety of learning styles, (Clark 2001).

2.3 The Constructivist Approach

Weller argues that 'constructivism is probably the dominant learning approach in online courses' (2002, p 65). The reason for the popularity of this approach is that constructivism seems to take advantage of the positive characteristics that the Net offers. Learners construct their own knowledge and so the emphasis centers on the learner and dialogue with other

learners, rather than on the educator who steps out of the central position. Learning is based on creating meaning through dialogue, reflection and experience. (Reynolds, et.al. 2002, pp 22-23).

In consideration of how society has changed in light of the transition from an industrialized society to the Information Society, Beaty, et.al, argue that we need to also change our pedagogical approaches from 'the predominantly instructional paradigm […] to a more constructivist one' (Beaty, et.al. 2002). Furthermore, Papert (Papert in Beaty, et.al. 2002) suggests that the industrialized view of society and the linear curriculum associated with it must give way to innovative pedagogical models available through digital technologies, which are more appropriate for our complex and rapidly changing world. In particular, Felix (2003) argues that 'there are persuasive reasons for using online technologies both as valuable extensions to what can be done in the language classroom and for improving the quality of traditional distance education, especially if we believe in constructivist approaches.' Research has shown that social constructivist approaches are especially effective in the acquisition of a second language (Ellis 2003). Depending on the language level and learner competence seen in each group, these collaborative forum activities can be guided by the tutor to a greater or lesser degree. Constructivism has influenced other online pedagogies such as collaborative learning and problem-based learning.

However to generalize that constructivism should be considered as the most effective approach for online learning is too simplistic a concept. In order to plan for a successful learning experience online a strong pedagogical foundation is necessary, which should be based on several factors, as outlined by Weller:

- the personal beliefs of the educator;
- the approach that is best suited to the materials and skills required for a particular topic;
- the level at which a course is taught;
- the experiences students have had on other courses;
- the needs and beliefs of the various types of students involved in a course;
- the range of resources necessary and levels of technology available. (Weller 2002, p. 77)

The specific context of each course will most likely require a mixture of pedagogical approaches in order to satisfy course objectives and learner needs as well. For example, a CMC asynchronous discussion activity could follow instruction through an online video presentation of more factual materials. As previously mentioned, language learners at lower levels need more instruction in learning grammatical forms, collocations and basic communicative structures in order to develop a sound base for the gradual progression up to higher levels of communication and peer interaction in the second language. After progressing to intermediate language levels, learners are capable of knowledge construction through collaborative, conversational activities in L2.

3. ADULT LIFELONG LEARNERS

For the lifelong learner, new pedagogical models are based on active participation rather than on transmission. Knowles (1978) describes the nature of adult learners in his theory of andragogy:

What affects their success?

- While children trust the teacher to define course content, adults need to define it for themselves, or at least to be persuaded that it is relevant to their needs.
- While children accept a dependent relationship with a teacher, adults have a sense of self-direction and personal responsibility.
- Adults have a wide range of personal experiences to draw on, which they appreciate being used as a learning resource, and resent being ignored in favor of other peoples' experiences.
- For adults the future is now; they have a basis of information and see learning as necessary for solving problems in the present.
- Children may need external motivation to make them learn; adults volunteer to learn because of their intrinsic motivation. (Knowles 1978)

Although adult learners demonstrate the above characteristics, many students are not prepared for this change of direction and need support in *learning to learn* in this new environment (Beaty, et.al. 2002). So learning support can be as equally important as the course objectives themselves. Within sociocultural theory the metaphor of *scaffolding* is used to illustrate the provision of 'just enough assistance to guide the learner to participate in the activity and to assume increased responsibility for arriving at the appropriate performance' (Aljaafreh & Lantolf 1994, p. 469). In the case of online group collaboration, the concern may be to determine ways in which scaffolding aids the development of both electronic literacy and language skills, gradually forming the basis for a learner's electronic communicative competence (Chapelle 2001). Consequently, new online approaches present opportunities for a range of support strategies that can be implemented by both the tutor and by other participants, who may take on the role of mentor.

In the context of second language teaching and learning, elements of a constructivist approach can provide positive conditions for the development of communicative abilities. Research has shown that when communicating online some adult learners show fewer inhibitions, less social anxiety and greater willingness to take risks (Roed 2003; Wallace 1999; Warschauer, M. 1999; Compton, L. 2004). This lower level of inhibition is advantageous in second language learning, since it can result in increased discourse production, also referred to by Chapelle as "*willingness to communicate*", (2003, p.89). Research into computer aided learning also refers to this phenomenon as 'disinhibition', which Adam Joinson defines as "any behavior that is characterized by an apparent reduction in concerns for self-preservation and the judgment of others", (Joinson 1998, p.44). Asynchronous forum discussion activities provide important opportunities for discourse development in L2 and also increase *willingness to communicate* in normally timid students due to the relatively anonymous feeling of online identity and the extended time available for expressing ideas. (McIntyre 1988) So, an online communicative approach based on a constructivist philosophy, through the use of asynchronous CMC activities, offers significant advantages over classroom learning.

In conclusion, constructivist approaches can form a useful basis for elements of collaborative language learning online. However, reflective practice will help educators determine the appropriate mix of pedagogies for each learning experience

and group of students. Both the online tutor and participants have flexible roles that can facilitate improved communicative ability as well as build an interactive learning community through second language production.

4. COURSE OVERVIEW

The University of Siena Language Center offers blended English courses for professional adults from zero beginner to CEFR Level B1. The program offers more than simply filling short-term skills gaps; instead adults are actively engaged in learning to learn a language in innovative ways aimed at more active learning. In contrast to traditional university courses of ten to twelve weeks per semester, the three-level English courses for AOUS adult lifelong learners are divided in easily assimilated nine-week modules. Every week there is one three-hour lesson in the classroom and a closely integrated online lesson for a suggested two hours of study, although the online time largely depends on the individual study styles of each participant. An outline of the three levels is shown below (see Figure 1):

Level A - General English, 90 hours

- Module 1A (42 hours = 16 hours online + 26 hours f2f)
  - 1A final written exam, 2 hours
- Module 2A (42 hours, 9 weeks)
  - 2A final written and oral exam, 4 hours

Level B – English for the health professions, 90 hours

- Module 1B (42 hours = 16 hours online + 26 hours f2f)
  - 1B final written exam, 2 hours
- Module 2B (42 hours, 9 weeks)
  - 2B final written and oral exam, 4 hours

Level C – English for the health professions, 90 hours

- Module 1C (42 hours = 16 hours online + 26 hours f2f)
  - 1C final written exam, 2 hours
- Module 2C (42 hours, 9 weeks)
  - 2C final written and oral exam, 4 hours

4.1 Integration: the F2F and Online Lessons

The online and f2f lessons are carefully integrated so that students can easily see the purpose and complementary qualities of both. The online lessons have been designed to be completed first as useful preparation for the speaking and listening activities done in the classroom. In our case, the participants are inexperienced in online learning and so the preparation of a *course map* (syllabus) is very helpful, showing the connections between the f2f lessons and the online activities. Clear objectives for each lesson are highlighted and the CEFR language 'can do' statements are given for each online lesson so that participants will concentrate on specific goals and get a sense of satisfaction for the progress they have made. Support for *informal learning* is provided by explaining ways to develop time-saving e-learning skills, such as skimming web sites and doing internet searches for specific information without losing focus or becoming distracted along the way. In this particular blended program, the classroom teacher and the online tutor are two different individuals, providing learners with two reference points for meeting the needs of multiple learning styles and giving a broader exposure to language use. In this way, not only collaborative learning takes place but also collaborative teaching, offering numerous advantages.

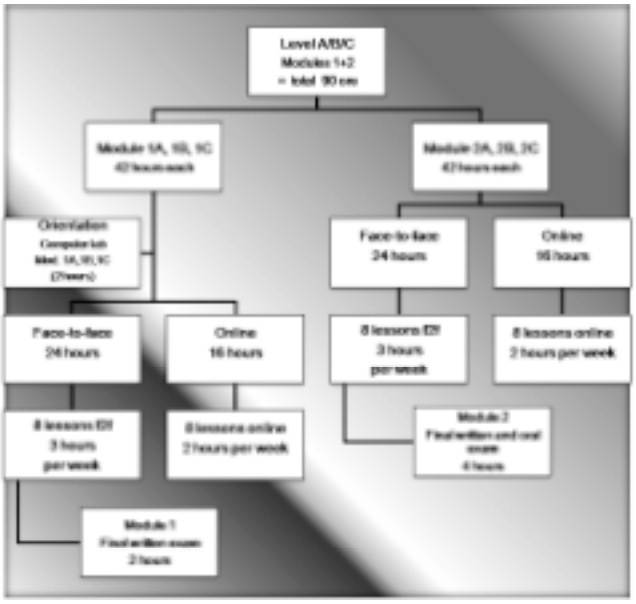

Figure 1. Diagram of blended structure for Levels A, B and C (*up to the language ability level CEFR B1*)

5. ONLINE LEARNING ENVIRONMENT

In 2005 the CLA adopted Moodle (http://moodle.org/), an open source course management system (CMS), as the basis for the site *CLA Siena Online* (http://moodle.lett.unisi.it/), which was implemented for this project due to the need to meet user-friendly accessibility issues and a flexible course design aimed at language acquisition. Moodle was also chosen because of the modular structure which makes possible the design and creation of reusable learning objects and collaborative small group activities that are both useful for language learning and are easy for teachers to set up. We have seen that participants, both in the classroom and online, are intrinsically motivated to improve communicative ability in L2 and they especially appreciate the virtual contact with their colleagues.

Moodle offers a modular format in which learning objects are easily created or uploaded, and interactive linguistic activities are straightforwardly implemented, such as blogs, instant messaging and chat for synchronous interaction, as well as individual or group forums, a student-constructed glossary, and a wiki – for collaborative writing activities (see Figure 2).

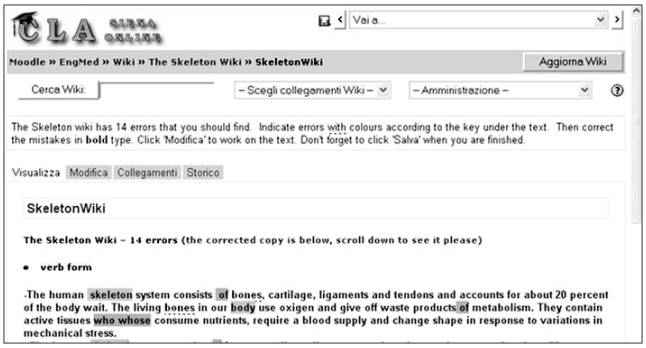

Figure 2. A wiki used for a collaborative text correction activity, with a color-code system

6. COLLABORATION IN L2

Asynchronous forum activities have been implemented for collaborative interaction in English, which actually extends the time for interaction and conversation that begins in the classroom. In addition, behind constructivist principles lies the philosophy that *learning is a social process* and so the collaboration involved promotes the development of communication skills, reflection, active learning and a deeper understanding through peer learning (Weller 2002, pp 68-69). One particularly interesting study explored the role of CMC as a medium for peer writing feedback, in comparison to face-to-face interaction. Foreign language students receiving computer-mediated feedback made more detailed revisions in their writing, whereas those receiving oral feedback made more global changes (Schultz 2000). CMC discussion resulted in more complex language use than face-to-face discussion, more equal participation, an approach to language learning using noticing and use of linguistic 'chunks' and an increase in 'willingness to communicate'. CMC interaction depends on the teacher's beliefs and approaches, as well as the type of software tool chosen (Warschauer 2003; Compton 2004; MacIntyre 1998). A *wiki* can be an excellent tool for collaborative writing and progressive modification in L2 and can be used at all language levels, from a simple exercise in 'correct the errors', (see Figure 2), to a higher level group business or medical report writing project in L2.

To promote further development of innovative learning activities online, collaboration began in 2009 between the Language Center and the Interaction Design Area, Communication Science Dept., University of Siena, with student teams developing a learning object (LO) project as part of the course *Learning Technologies Design*. Through the enthusiastic collaboration of Prof. Patrizia Marti and the student designers, a number of multimedia LOs have been developed for improving listening and speaking skills through online group conversations in L2. Experimentation with these LOs has begun in the blended courses for adult learners. Previously all interaction was through text. Now voice interaction is possible between small groups of learners with audio feedback from the teacher, which can be used to improve both communication and pronunciation. A future contribution will deal with the continuing implementation and effectiveness of this collaborative LO project.

7. FEEDBACK & CONSIDERATIONS

An initial program evaluation was carried out in June 2007 when end-of-course feedback was gathered through a questionnaire completed by 55 active participants of Modules A2, B2 and C2, who were finishing the final exam at that time. This feedback was especially useful because the survey involved the collection of information from continuing students who had completed up to three consecutive modules during the year. Through this limited survey quantitative generalizations cannot be made. However, some qualitative conclusions can be taken into consideration for improving future courses. In response to the question, "What has helped you learn the most during this course?" there were a wide variety of answers, which is a good indication that diverse learning style needs were met. Answers ranged from the usefulness of small group work and forum writing tasks to tutor support, the organization and variety of course materials and simply the 'effort required for communicating in English'. On the other hand, the difficulties experienced in blended learning were primarily related to lack of time and the amount of effort necessary to keep up with the weekly lessons. Concerns of this type need to be taken into consideration and solutions may be found by either reducing the workload or adjusting the course calendar to allow for a mid-course catch-up break.

A second period of course evaluation was completed in March 2009 by means of a questionnaire aimed at identifying specific advantages and disadvantages by comparing the f2f and online elements of the course (Ciani 2009). Sixty-one participants responded by completing the questionnaire. It is interesting to observe that not one participant reported that the learning environment was difficult to use, only five indicated that it was not very easy to use, and the majority stated that it was easy to use. From the total response, 18% reported working online every day, 53% logged on two or three times a week, 22% once a week and 7% once every two weeks. In response to the question, "Were you satisfied with the course?", 69% responded that they were satisfied or very satisfied with their experience on the blended course, 8% were somewhat satisfied and 21% were not very satisfied. The reasons for this high level of satisfaction were indicated in comments that were given, such as:

- Blended learning provided the opportunity to improve communicative language ability due to a method that was enjoyable, simple, dynamic and flexible.
- The course gave adults the opportunity to learn through the challenges involved in comparison and collaboration with other colleagues (peers) and the online and classroom teachers (Ciani 2009).

On the other hand, the lower level of satisfaction was due to the lack of time for speaking practice and above all the lack of time that individuals had available to dedicate to studying English in general, since their work, family life and other obligations took the priority.

The response to the question regarding the improvement of the four language abilities of reading, writing, listening and speaking was particularly valuable, as shown in Figure 3. It is clear that the online lessons were considered to be more useful than f2f lessons for improving reading and writing, whereas the classroom lessons facilitated improvement in listening and speaking skills.

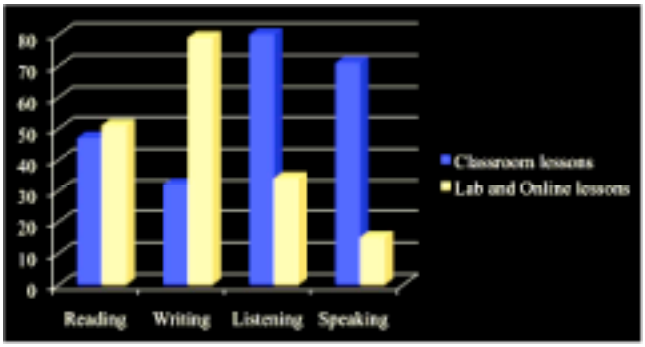

Figure 3. The classroom and online lessons were most useful for improving which language skills?

Final exam results indicate that participants who actively participate in the classroom and online make progress in all four language skills, although beginners have to put forth much greater effort to attain success than at intermediate levels. As noted previously, motivation levels for learning English are high for the professional adult learners who participated in the program and the service of blended language learning offered by the Language Center is appreciated as a constructive contribution towards further development of innovative solutions for continuous, lifelong learning at the University of Siena.

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