

A CURRICULUM-BASED APPROACH TO BLENDED LEARNING

Linda Joy Mesh

University of Siena, Italy
linda.mesh@unisi.it

Keywords: Blended Learning; Language Learning; Curriculum Design; Moodle.

This paper aims to present an overview of the use of blended learning (BL) as a methodology for the language programs offered by the University of Siena Language Centre (CLA). First, the importance of a flexible, curriculum-based approach to BL is examined, based on a review of the literature. Experimentation with blended English language courses for part-time students began in 2002 and in 2005 the open-source learning platform, Moodle, was adopted due to the interactive tools available, making it possible to create learner-centered activities based on a collaborative approach. A description is given of the role BL has played in adult professional training at the university and how it provides a flexible solution for meeting the needs of degree course programs for students. With a view toward good practice, a detailed description of a currently offered blended course is given, including comparative data of the same course taught traditionally in the classroom with results indicating student performance for both courses during the

for citations:

Mesh L. (2016), *A curriculum-based approach to blended learning*, Journal of e-Learning and Knowledge Society, v.12, n.3, 87-97. ISSN: 1826-6223, e-ISSN:1971-8829

period of an academic year. Moreover, a range of competencies is necessary to prepare students for the workplace, such as providing them with skills in intercultural communication and digital literacies, which can be indirect benefits from the adoption of a blended methodology. The study concludes with reflections for the future.

1 Introduction - A curriculum-based approach

Considering the concept of curriculum design in blended language courses, several elements need to be examined, such as various digital and linguistic literacies, interaction, communication and collaboration between learners, which are all essential for developing language competencies (Beaty *et.al.*, 2002; Warschauer 2003). In particular, Hall & Hewings (2001, p.1) state that a language curriculum covers ‘all the issues relating to the planning, implementation and evaluation of a series of language learning events conceived as a coherent whole with a specified purpose’. In this regard, Graves (2008) believes that both the online perspective and the classroom perspective can shape what is possible in a blended language curriculum. In addition, a reflective approach needs to be taken by educators in order to arrive at the course design that is best suited to each group of learners and to determine the appropriate blend of online and face-to-face (f2f) lessons, resources and activities. It is important to realize that in both real and virtual learning environments educators can and should aim to provide opportunities for participants to set goals, undertake cognitively challenging work, collaborate together and take on multiple roles, supporting their peers in different ways (Graves, 2008, p. 170-1). Furthermore, a consistent curriculum design and the learning experience need to take priority over and inform the choice of technologies that are implemented in the design of blended learning (BL).

According to the principles of good practice, instructors and students, as well as other stakeholders, are invited to reflect and comment on course content at various stages. In addition, assessment and course evaluation are considered as important elements that shape the innovative process of blended curriculum development. Simply shifting lesson materials or assignments online so that they are accessible by mobile technologies, without considering the importance of curriculum design, does not necessarily constitute or facilitate effective learning (Beatty, 2013).

Those who design curricula for BL, which may also involve mobile devices, need to be aware of how the educator’s facilitating or guiding role fits into the entire framework of coherent course design. Furthermore, the online activities need to be pedagogically driven if they are to be valuable and effective (Felix, 2002; Laurillard, 2002; Motterham, 2006).

Regarding digital and linguistic literacies, university graduates need to be

well prepared in order to face a limited job market. Therefore, the learning experience should offer opportunities to develop the soft skills and abilities for effective communication in English in intercultural contexts, in person or through online conferences (e.g., Skype), as well as developing the ability to conduct effective online research and to give multimodal presentations and create projects in teams using web applications, such as blogs and wikis (Shetzer & Warschauer, 2000; Trilling & Fadel, 2009; Lankshear & Knobel, 2006; Pankin *et al.*, 2012; US Department of Education, 2010). This need demonstrates that “language proficiency and technological skills have merged inextricably as integral components of the new skills required in emerging labor markets” (Fitzpatrick & O’Dowd, 2012, p. 23). Therefore, both students at university and adult learners need to combine language skills and digital literacies in order to communicate and collaborate effectively in new professional contexts. With this in mind, the following sections will give an overview of how BL has developed and its current role in the case of the University of Siena Language Centre.

2 Development of course management systems

For over ten years, blended learning has played an important role in the English language programs offered by the University of Siena Language Centre (CLA), which provides language courses for obligatory English exams to all departments of the university. From 2002 to 2005 experimentation with BL was carried out in *Synergeia*, a workspace created for collaborative knowledge building. This project was initiated in order to provide a flexible learning environment for both special-needs students and part-time, working students who could not attend traditional language courses. During this period three blended English courses were offered at levels A2, A2.2 and B1 of the Common European Framework of Reference for languages (CEFR) in preparation for obligatory international certification exams – the *Cambridge Preliminary English Test* (PET – Level B1). From 2005 to 2006 blended courses in Medical English were also requested in addition to several English courses for post-graduate degrees in Nursing and Economics.

The growing number of blended courses being offered eventually led to the need for a course management system that allowed for improved course administration and more options for collaborative small group linguistic activities. Therefore, in 2005, after conducting a comparative analysis of the platforms that were available at the time, the CLA adopted the open-source learning platform Moodle for the blended courses that were being offered, now on the site *CLA Siena Online*. This choice was made primarily because it is an open-source course management system that is modular and flexible; it

provides user-friendly applications such as wikis and blogs that allow teachers to design and create activities that are appropriate for different language levels and groups of students, as well as for eventual training courses for adults and language teachers. Moodle also provides a unique linking system for sharing materials between courses, which makes it possible to create and share materials between various lessons in different courses without duplication in each course. This development made possible the creation of the WebLingua project (Mesh & Zanca, 2005), a *virtual* library of materials that is still integrated into the blended courses today.

3 Blended learning for professional adults

From 2006 to 2007, as seen in Figure 1, the number of adult learners enrolled in BL courses offered by the CLA outnumbered university students. Although BL was considered useful and effective for adults who had a need for flexible study solutions, it did not play an important role in the courses offered to the majority of university students.

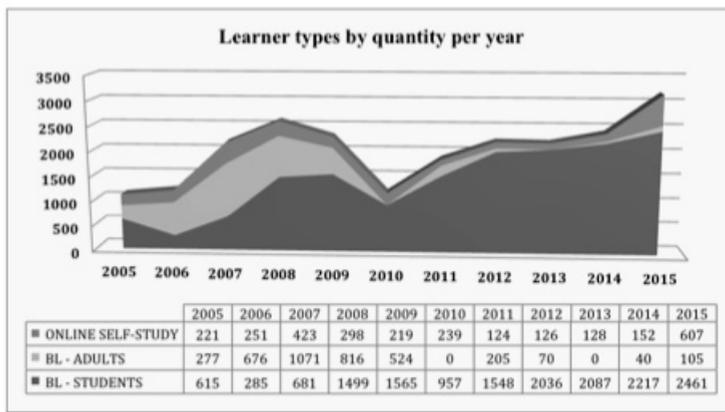


Fig. 1 – Learner types by quantity per year - CLA Siena Online - 2005-2015.

The new learning environment based on Moodle was implemented to meet the unique course requirements of adult working students, including special projects for university personnel, hospital administrative and medical staff and other working professionals who were interested in improving language skills for their various professions (Parlangeli *et al.*, 2012). Methods of needs analysis, quality control, feedback, monitoring and evaluation were carried out at the end of each course in order to make necessary improvements and updates at the end of each academic year. Teacher training courses, in online

methodologies and online tutoring for language learning were also offered in a blended format from 2006 to 2012, which resulted in a broader adoption of BL. Self-study courses are also made available to students, but because there are no face-to-face lessons, these are not considered as part of the BL program.

4 Expansion of blended learning to students

From 2007 to 2009, BL for adults continued to play an important role, and at the same time, in 2008, a need arose for Business English courses for Economics students as a new degree course requirement, as seen in Table 1 below. Through the experience gained in creating an effective curriculum for adults, the next step was to develop BL for new applications, such as Business English, that were suitable for the needs of university students who have learning styles and needs that are very different from working adults.

Table 1
LEARNER TYPES AND THE SHIFT OF BLENDED COURSE TYPES PER YEAR

Year	Learner Type	Course Type	Learning environment
2002 to 2004	1. Working students 2. Special needs students	Obligatory international certification in English at CEFR levels A2, A2.2 & B1	Synergeia
2005 to 2007	Training courses for working adults	<ul style="list-style-type: none"> • Business English • Medical English 	Moodle
2008 to 2009	1. Training courses for working adults 2. University students (first cycle degree programs)	<ul style="list-style-type: none"> • Medical English (hospital staff) • Business English (students) 	Moodle
2010 to 2016	University students in 1 st and 2 nd cycle degree programs, Master's and medical specialization schools.	<ul style="list-style-type: none"> • General English, levels B1 & B2, obligatory exams • Business English • Medical English 	Moodle

Several changes were made to the BL format, however, since a needs analysis indicated that the students needed more time for in-depth study online. Therefore, the courses were gradually integrated with a wider variety of collaborative and communicative activities online in forum discussion and wikis, as well as videos and assessment methods to evaluate learning outcomes. The blended course format included from 40 to 60 hours of learner-centered, communicative activities online and ranged from 40 to 50 hours of classroom lessons for consolidating language skills such as pronunciation, oral production and listening comprehension.

In 2010, the financial crisis had an overall impact on institutions of higher

education in Italy. While the total number of BL course participants decreased at that point (Fig. 1) due to several factors, the role of BL continued to play an even more important role in the language courses offered to students. Although it was not possible to continue courses for adult learners at that time, the focus shifted to university students. From 2011 to 2014, the number of students who actively participated in blended language courses has steadily increased and during 2015 the total number of BL adults and students exceeded the total number of BL participants at the peak in 2008.

5 Blended course design

Due to the growing need to offer blended language courses to university students, there has been an increasing focus on effective course design as well. So from 2011 to 2016, further attention was given to creating a blended learning experience based on a coherent curriculum design that integrates the online and f2f experience while also supporting a variety of learning styles online. Generally, the blended approach offers the advantage of flexibility in extending study to the learners' most practical and convenient time, place and style, offering a learner-centered approach through a variety of pathways that students can choose from in collaborative online lessons and activities.

At this point, in order to highlight one of the most numerous blended courses offered by the CLA, this section gives a detailed description of a General English course at CEFR Level B2, which students in the majority of second cycle degree courses offered at the University of Siena are required to complete. It is important to note that this course was developed from the experience with both the adult learning program in the past and the ongoing BL program offered to university students at all levels. Furthermore, due to the large number of students who must pass this qualifying examination (*idoneità*), the Language Centre offers a choice of registering for either a blended or a traditional 100% classroom course each semester.

The blended English B2 language course, with an average of 30-35 students per group, per semester, is organized as follows:

1. course introduction and orientation session to the online component, in a computer lab (two hours);
2. 25 classroom lessons (2-hour lessons, twice a week) concentrating on reading comprehension, vocabulary and Use of English skills;
3. 12 online lessons concentrating on reading comprehension, vocabulary, grammar and writing skills, facilitated by the language instructor – one lesson per week, closely integrated with the classroom lessons: online study and asynchronous interaction activities useful for language learning (40 to 60 hours total time, depending on students' study habits

and individual needs).

5.1 Blended and traditional courses compared

In order to present results from this specific approach taken for BL course design, comparative data was collected for the academic year 2014-2015 (Table 2) to illustrate and compare student performance for the above-mentioned blended course in Section 5 with a corresponding traditional classroom course that is also offered at the same time, with 90 hours of face-to-face lessons (3 lessons per week for 2 hours each). Both courses prepare students for an internal English B2 qualifying examination. To meet the needs of a variety of learning styles, the CLA offers both blended and f2f English B2 courses that are based on the same General English curriculum. Both types of course prepare students for centrally administered exams that assess Reading Comprehension and Use of English at level B2. Consequently, all students in both the traditional f2f courses and the BL courses register for the same exam sessions regardless of the type of course they have taken.

The number of Blended B2 and Classroom B2 courses offered from September 2014 to June 2015 is indicated in Table 2 below. In order to show a comparison between student performance for both types of courses, it is necessary to consider the number of active, participating students in each course, the number of students who never attended lessons, the exam pass rate and the exam fail rate corresponding to sessions held through April 2016, which is considered at Siena University as the duration of the exam calendar for courses held from September 2014 to June 2015. As shown, during the first semester there were three Classroom B2 courses with a total of 82 students and there were eight Blended B2 courses with 265 students. Furthermore, the first semester Classroom B2 courses resulted in a pass rate of 74.39%, while the Blended B2 courses showed a higher pass rate of 81.13%. Considering the overall data, the fail rate for classroom courses was 12.2% in contrast to the lower fail rate for blended courses at only 4.91%.

Similar results are seen for the second semester; although the number of students in Classroom B2 courses increased to 148, in the Blended B2 courses the participating students decreased to 209. However, the pass rate varied very little from the first semester, at 75% for classroom courses and 81.34% for blended courses.

Considering the overall total results for the academic year 2014-2015, there is a consistently higher pass rate for blended courses at 81.22% in comparison with the traditional classroom courses at 74.78%. Although this difference is relatively slight, it remains constant throughout the year. The student rate of exam failure for the blended courses, with a total of 474 participants, is very

low at only 5.27%; while the classroom courses, with a total of 230 participants, indicate a higher exam failure rate of 13.04% for this academic year.

By examining student performance for the academic year 2014-2015, in this particular comparison of two very different typologies of courses, which nevertheless have the same curriculum content and objectives, it has been demonstrated that a blended methodology can be equally as effective, and in this case notably more effective, than traditional classroom teaching. The flexibility provided by a blended approach may be the key to reducing failure rates by providing ways in which students can work together collaboratively on activities that are more cognitively stimulating and more compatible with millennials' needs to develop communicative competencies for their future professions.

Table 2
COMPARISON OF STUDENT PERFORMANCE: BLENDED VS. CLASSROOM COURSES

Level B2 obligatory English courses for academic year 2014-2015	No. courses	No. participating students	Number PASS exam	% PASS exam	Number FAIL exam	% FAIL exam	No. students never present at lessons	% students never present at lessons
Classroom B2 1st semester	3	82	61	74.39%	10	12.2%	11	13.41%
Classroom B2 2nd semester	4	148	111	75.00%	20	13.51%	17	11.49%
Blended B2 1st semester	8	265	215	81.13%	13	4.91%	37	13.96%
Blended B2 2nd semester	6	209	170	81.34%	12	5.74%	27	12.92%
Classroom B2 total year	7	230	172	74.78%	30	13.04%	28	12.17%
Blended B2 total year	14	474	385	81.22%	25	5.27%	64	13.5%

5.2 Interactivity and connectivity

Returning to the previous discussion on curriculum design, an essential element for language learning that is built into each blended course, whether for adult learners or university students, is connectivity between learners through linguistic interactivity, which is informed by a constructivist approach (Mesh, 2010). A variety of social applications, such as wikis, forums, and project-based learning tasks can be regularly implemented for communicative activities, which are aimed at making connections between key elements of

the curriculum for each language level, such as linguistic accuracy, content and structure through meaningful exchanges, both written and oral, which naturally create authentic information gaps so that learners engage deeply, in order to have meaningful interactions about topics that are of interest (Felix, 2002; Wenger, 1998; Motterham, 2006).

This brings us naturally to examine the importance of student interactions based on the concept of communities of practice (Wenger, 1998). As humans we are constantly pursuing interests and objectives, from simple survival to social relations and common ambitions, primarily through interaction with each other. These daily experiences lead us to learn and form communities over time, which support our continuing pursuit of common goals. Consequently, when designing online collaborative activities, the vast collection of community experiences represented by the learners in each group are considered. Moreover, the progressive stages of online activities are carefully scaffolded to allow engagement with the learners' experiences and ideas (Mesh, 2010; Salmon, 2010). Peer learning that is based on shared experiences and engagement in reflective discourse facilitates a more conscious awareness of progress being made. Therefore, experiences that facilitate this understanding of what is being learned through connectivity and interactivity can form a coherent thread throughout the design of each blended course.

Conclusions and a look toward the future

Through this study, the flexibility of BL in meeting the changing requirements of a range of English courses for several types of learners in various social, educational and business contexts has been illustrated. The courses corresponding to these contexts include preparation courses for qualifying English examinations for both first and second cycle degree programs, obligatory Medical English courses for more than forty medical specialization schools, as well as advanced English courses for PhD students and alumni who wish to improve intercultural communication skills for the workplace.

Additionally, by examining the data regarding student performance presented in the comparative case study between blended B2 English courses and traditional classroom courses with the same curriculum, blended learning has been demonstrated to be equally as effective as a language learning methodology as traditional classroom teaching. In fact, when attention is paid to good curriculum design, in this case blended learning has been shown to be notably more effective in meeting the needs of university students' changing approaches to learning a second language than traditional classroom teaching alone. There is a definite need for further research in this field to continue.

Moreover, it is clear that blended learning is not something so ‘new’. Therefore, this study also hopes to encourage further discussion regarding its effective adoption in Italian universities as a way to enrich higher education, which is observed as being more the ‘norm’ in other countries, such as Denmark, the UK and the USA, where high-quality courses are inherently blended, yet without having this specific label (Minerva, 2014; Pankin *et al.*, 2012; Motterham, 2006; U.S. Department of Education – Office of Educational Technology, 2010). Finally, with a view toward the future, it is an educator’s goal to prepare university students for an intercultural workplace. Therefore, to successfully meet the objectives of a language-learning curriculum and indirectly develop valuable transversal competencies, a methodology based on blended learning can be both appropriate and effective.

Acknowledgements

I would like to convey my sincere thanks and appreciation to the direction and staff of the University of Siena Language Centre who have guided, supported and contributed directly and indirectly to this study and BL program: Anne Schoysman, Roberto Venuti, Marialetizia Bologni, Anne Rocchiccioli, Riccardo Rencinai, Paolo Baglioni and all of the language teachers involved with blended learning.

REFERENCES

- Beatty, E., Hodgson, V., Mann, S., McDonnell, D. (2002), *Working Towards E-Quality in Networked E-Learning in Higher Education: A Manifesto Statement for Debate, presented at a Dissemination Event for Understanding the Implications of Networked Learning for Higher Education Seminar series*, Sheffield, UK, University of Sheffield.
- Beatty, K. (2013), *Beyond the classroom: Mobile learning the wider world*, Monterey, CA, The International Research Foundation for English Language Education.
- Felix, U. (2002), *The web as a vehicle for constructivist approaches in language teaching*, ReCALL, 14 (1), 2-15.
- Fitzpatrick, A. & O’Dowd, R., eds (2012), *English at Work: An Analysis of Case Reports about English Language Training for the 21st-century Workforce*, Monterey, CA, The International Research Foundation for English Language Education & National Geographic Learning.
- Graves, K. (2008), *The language curriculum: A social contextual perspective*, Language Teaching, 41, 147-181.
- Hall, D. R. & Hewings, A., eds (2001), *Innovation in English language teaching: A reader*, London, Routledge.

- Lankshear, C. & Knobel, M. (2006, 2nd ed.), *New Literacies: Everyday practices and classroom learning*, New York, McGraw Hill.
- Laurillard, D. (2002), *Rethinking University Teaching – A conversational framework for the effective use of learning technologies*, London, RoutledgeFalmer.
- Mesh, L. (2010), *A Strategy for learner support and quality assurance in a blended ESL course*, in (Mesh, L. ed.) 'Implementing e-Learning in English Language Teaching', Innovative Approaches to Language Teaching Online, Quaderni del Centro Linguistico di Ateneo, Università degli Studi di Siena, n.1, aprile 2010, Rome, Editoriale Artemide.
- Mesh, L., Zanca, C. (2005), *WebLingu@: Blended English language learning*, Journal of e-Learning and Knowledge Society, Edizioni Erickson, 1 (2), 259-270.
- Minerva, T. (2014), *ICT and Education in Italian Universities: steps to 'normality'?*, *Formazione & Insegnamento* XII (1), 45-56.
- Motterham, G. (2006), *'Blended' education and the transformation of teachers: a long-term case study in postgraduate UK Higher Education*, *British Journal of Educational Technology*, 37 (1), 17-30.
- Pankin, J., Roberts, J., Savio, M. (2012), *Blended Learning at MIT*, Blended Learning Whitepaper, MIT Training Alignment Team (TAT). URL (accessed on 1 May 2014): http://web.mit.edu/training/trainers/resources/blended_learning_at_mit.pdf
- Parlangeli, O., Marchigiani, E., Guidi, S. & Mesh, L. (2012), *Disentangled emotions in blended learning*, *International Journal of Human Factors and Ergonomics*, 1 (1), 41-57.
- Salmon, G. (2000), *E-moderating*, London, Kogan Page.
- Shetzer, H. & Warschauer, M. (2000), *An electronic literacy approach to network-based language learning*, in Warschauer M., & Kern R., eds, *Network-based language teaching: Concepts and practice*, 171-185, Cambridge, UK, Cambridge University Press.
- Trilling, B. & Fadel, C. (2009), *21st-century skills: Learning for life in our times*, San Francisco, Jossey-Bass.
- U.S. Department of Education – Office of Educational Technology. (2010), *Transforming American education: Learning powered by technology*. URL (accessed on 17 February 2011): www.ed.gov/sites/default/files/NETP-2010-final-report.pdf.
- Warschauer, M. (2003), *Changing currents in second language writing research: A colloquium*, *Journal of Second Language Writing*, 12 (2), 151-179.
- Wenger, E. (1998), *Communities of practice: learning, meaning and identity*, Cambridge, CUP.