Collaborative Learning Strategies in a Blended International Context

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Abstract

Collaborative learning strategies are the new frontiers in the blended education field. At the same time, they have undeniable implementation difficulties, particularly when they are applied in an international context, where different educational traditions must coexist.
The collaborative blended learning model presented here has been tested during the first year of the E-Urbs Master, European Master in Comparative Urban Studies[1], funded by the EU[2].

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The model proposes a system in which the different aspects of any advanced distance educational format have been identified and put into balance, also considering the problems derived from an unbalanced distribution of priorities.

1 Collaborative learning and international context

E-learning, in its various incarnations, has grew significantly during the last fifteen years (Fletcher, 2004; Waterfield, 2002). The reasons are several. Two of them needed to be mentioned: a) a potential reduction of costs in relation to the quality of education offered (Munro & Munro, 2004), and b) the use of Web 2.0 as an engine for innovation and learning. Among the institutions that make most use of e-learning, and web 2.0, we found Universities (Bacsich, 2004). These new strategies for collaborative learning are in line with the directives of the Bologna process[3] and the Europeanisation of secondary education systems. The European Commission considers the Europeanisation (see the European Council resolution in Lisbon, March 2000) as a necessary step in order to promote growth and competitiveness in a knowledge-based society (Kok, 2004).

Thus, collaborative blended learning strategies offer new possibilities to enrich the transnational offer proposed by Universities. With blended courses, training activities are made partially or completely online, with the assistance, even from a distance, of teachers and tutors. Thanks to the use of new technologies applied to teaching, it has become easier to build integrated European curricula.

Among the main strengths of the blended learning strategies, there is their ability to maximize the learning benefits derived from cultural, linguistic or disciplinary differences. In a society where information is ubiquitous, global services and populations moving constantly (Bauman, 2000; 2005; 2008), the universities have a growing need to manage complexity by implementing diffuse social learning processes in their curricula.

E-Urbs (European master in Comparative urban studies), is a master of 60 ECTS that uses collaborative blended learning strategies in a multilingual and multicultural context. The long-lasting experience of the nine prestigious universities involved offers to the Master an in-depth knowledge of urban studies. Its international character and multidisciplinary methodology, emphasized by a comparative approach and a specific field work, helps to develop the necessary meta-skills for the interpretation of urban changes and it permits to understand the appropriate strategies and policies in order to tackle urban problems. The experience and expertise of the most famous scholars of the sector allows students to develop a comparative approach in the study of urban policies in different and distant urban contexts.

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[3] For basic documents on the Bologna process, see: http://www.sociologiadip.unimib.it/unimon/.

From the blended learning point of view, E-Urbs can be considered a laboratory where the difficulties that normal online course experiences are addressed: falling motivation, problems in the constitution of a learning community, communication clutches, etc. These issues were also experienced in a context in which there were strong heterogeneity among the learning group and differences among participatns. In particular:

1. Cultural differences (24 students from 14 countries and 5 continents, characterized by diversity in religion, culture, ethnicity, participated in various activities of the master). Paradoxically, some more culturally relevant issues have arisen from two participants belonging to the same cultural milieu (Indian). They belong to two different Casts and they needed to interact in learning group with completely different specifics from which they were used to;

2. Language and age differences (E-Urbs uses English as main language in learning processes. This has somehow increased learning difficulties, as most of the students weren't English mother tongue; the age difference was also an issue, as some students were already professionals dealing with urban policies, while others were just graduated)

3. Juxtaposition of different institutions at transnational level (9 universities in 8 countries have tried to bring together the different national bureaucracies);

4. Different disciplinary traditions (Students and teachers were from different disciplinary and cultural traditions.);

5. Virtual and physical distances (Virtual campuses need to deal with the difficulties of managing learning processes at distance. The biggest challenge is to maintain the class active and motivated);

6. Communication technologies (last but not least, the challenges inherent in the use of communication technologies in a multicultural context).

2 Strategies of differences integration

The main methodological challenge of the master was to keep the value added of all these differences (personal, linguistic, cultural, technological, etc.), not by reducing the complexity that these express, but promoting their integration and complementarity in a comprehensive learning model. Inside E-Urbs this objective was achieved by balancing the following four aspects: 1) technical; 2) pedagogical; 3) institutional and 4) contents related. The balance of these four aspects transformed the challenges into resources.

3 Pedagogical Aspects

The pedagogical aspect is crucial in tackling a problem which is common to many learning paths: the decline of attention. The learning strategies used in E-urbs are three: a) a blended course, b) creating a community of collaborative learning, c) using co-opetition methodology, d) an e-portfolio

3.1 A blended course

E-urbs blends f2f with online learning activities. The reasons of it are linked to three main necessities: 1) some disciplines are more complex to teach online than others; 2) an European curriculum would be very expensive as it requires a transnational teaching staff; 3) travels across Europe and practical field work are essential for European training.

To resolve these apparently conflicting needs we organized the training course in three main periods: 1) a first period (S1-S4) intensive f2f activities (15 CFU), during which teachers, tutors and students came together and worked on basic concepts and methods of comparative analysis; 2) a second period (S5-S36) of online lessons for a total of 27 CFU; 3) a third period (S37-S49) 18 CFU, during which students went to one of the partner University to work on their dissertation, taking advantage of the scientific expertise available on the international network.

The final thesis discussion and the Award Ceremony was held in Urbino (L52) where students could physically meet again and where they received their Degree.

The collaborative blended learning approach was useful to rescale problems that typically affect learning online courses, such as lack of motivation, a weak sense of belonging to learning community, etc. (Irizarry, 2002). Thanks to the f2f period, it was clear how different disciplinary backgrounds constituted an enrichment for the new perspectives that they could bring into the discussion, rather than a problem in itself.

The same happened regarding cultural and age difference among participants. It was clear from the beginning as the experience gained by more experienced students coupled very well with the enthusiasm brought by younger students; The stay in Urbino (IT), a small university town, has allowed students to experience and to relate with people with different cultural backgrounds in a protected context. This encouraged the emergence of several multicultural groups, which helped to improve language skills, since English was the common language even in informal meetings. The difficulties related with distance, both technical and motivational, were contained in E-urbs, since people had already met face to face and, once online, they could easily compensate the in-

formative gap inherent in any distant relationship with the previously acquired knowledge of the group and its dynamics. The third part of the e-Urbs Master included an internship at one of the partner institutions for a comparative thesis. In this way, students had the opportunity to experiment different institutional contexts and meet scholars, teachers and classmates.

In sum, the blended approach contributed to improve the maintenance of a learning spontaneous community, using collaborative learning strategies.

In terms of cost-effectiveness, the adopted methodology and structure offered countless advantages. Thanks to the extensive period of online teaching, integrated with an intensive f2f course, students had been able to benefit from the experience of long-lasting experts, reducing to a minimum transportation and accommodation costs. Professors on the other hand, had the possibility of benefiting from a comparative study derived from a group of students from all over the world, extremely motivated and responsive.

3.2 A collaborative learning community

In E-urbs, the perceived sense of belonging to a specific learning community had a very important role in sketching the strategies for a collaborative learning methodology. In order to monitor these processes, an ad hoc workgroup (Pigliapoco & Bogliolo, 2007) has used two key indicators: the Classroom Community Scales, proposed by Rovai (2002) and based on a 20 questions questionnaire and SCITT, based on a scale of 6 questions introduced by Pigliapoco & Bogliolo (2007). Both indicators took into account the following four dimensions:

- Spirit (friendship, cohesion, links among students);
- Trust (credibility, benevolence, intimacy among students);
- Interaction (honesty in feedbacks, trust among students);
- commonality of expectations (as defining the same objectives in learning).

The perceived sense of community was tested twice: 1) at the end of the first f2f period and 2) at the end of the online period that followed. Even though the sense of community decreased slightly during the online courses, because of distance, it remained nevertheless quite high, even more considering this type of community. The uniformity of the feelings among all participants remained quite high as well. If the quantity of relationships among students during the online learning were lower, their quality, i.e. the intensity of friendship and interaction between students, was higher.

3.3 A co-opetitive process

To promote motivation among students, we tried to overcome learning inhibitors such as "forced participation" without spontaneous interaction through the development of an coopetitive type of exam. Coopetition is a methodology that combines cooperation with competition. It was initially developed within economic studies. It focuses on cooperation between the actors in a situation of imperfect competition (Brandenburger & Nalebuff, 1996).

During the E-Urbs master, we applied this methodology in some exams, in order to improve the learning effectiveness, taking advantage of the solidarity and the competition among the students, thus transforming their differences in a further opportunity to learn from each other. The system was structured in a way to allocate votes not only to people who had answered positively, but individually, to questions, but also to those students who had helped other students to answer. The students self-organized themselves in small groups of about 3-4 students each, obtaining higher evaluation for both themselves and their group.

3.4 Visual Laboratory

The Visual Laboratory integrated in E-urbs drove the 2.0 web collaborative learning approach even further. All students took photos in their city of residence. This allowed participants to use Visual Tools to reach a deeper understanding of their respective metropolitan areas. Since the images produced existed in a Visual wiki, these are available worldwide for the Urban Sociology teaching. Currently, the e-Urbs Visual Laboratory contains over 9,000 images of over 40 cities around the world, ranked according to the 9 main thematic issues relevant to urban studies.

4 The technique

To fully implement a collaborative learning strategy we used widely customizable technical instruments. For this purpose we used technology and software ad hoc: a) OpenLol, an e-learning platform; b) ePortfolio, a tool to promote self-reflection and strategic planning personal and professional development students; c) QMT, a management tool of questionnaires developed at the University of Urbino.

4.1 Open Land of Learning (OpenLoL)

OpenLOL[4] is a collaborative learning system developed with the support

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[4] For further information see: www.landoflearning.it

of the University of Urbino, based on Java and open standards like Linux and MYSQL. It aims at delivering and use Web 1.0 and 2.0 Services for learning. The entire online environment has been localized for use in various languages[5], thereby giving all participants the opportunity to use their own language in the learning processes, keeping English as working language. Among the most popular modules, we have the "classroom". This is based on an innovative concept of multilevel interactive chat, where lessons and/or courses can be held involving full professors, tutors, students, technicians and tutor, even using very slow connections. This allows to easily overcome and minimize the connection problems that can arise when different people connecting from around the world.

OpenLoL includes Web 2.0 capabilities. These were used to promote collaborative learning strategies. Asynchronous interactions take place on thematic forums and a repository provides a virtual space where both professors and students can distribute educational material and share documents. A Visual database for research online (called Visual Laboratory) helps you to organize the multi-media.

4.2 An ePortfolio

Through ePortfolio a student can critically and independently decide its benchmarks, and, on the basis of this decision, build a structured archive with the most significant (for him/her) material collected during the course. The ePortafoglio is a methodological framework for self-reflection and strategic planning. Most students have found it very useful for their personal and professional development. An ePortfolio 2.0 was included in the eURBS master. The eportfolio has also become a means by which students shared mutual interests. This has contributed to the growth of meaningful relationships within the group class and sharing learning experiences. It served as well for maintaining an international research network even after the end of the experience of the E-urbs Master.

4.3 Creation tool questionnaires (QMT)

In order to properly manage a complex project like e-Urbs, there was the need to structure a regular flow of feedback at various stages of the master, using various tools, including unconventional ones. For this reason we used the QMT, integrated into the OpenLoL platform and developed by the colleagues from the Department of applied informatics. The QMT has a double functionality: firstly it allows teachers to create a database of questions from

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[5] Localizing of the software has been made in the languages spoken in partner universities: Italian, Spanish, German, Danish, Dutch, Polish and French (English was already present as working language).

which it would be possible create real-time questionnaires for the students, with questions taken randomly. Second, it is a management tool examination (TMT), which helps educators to organize online exams. The tool can also be used for quality feedbacks.

Using this instrument, it was developed a questionnaire to monitor the effectiveness of the learning process. The questions were prepared by all Master's professors and the results of the learning curve has been calculated considering the correct answers to a number of randomly selected questions. Figure 1 shows the average of the scores obtained by the students before the start of the master (S0), after the first period f2f (S5) and at the end of the third online period (S37).
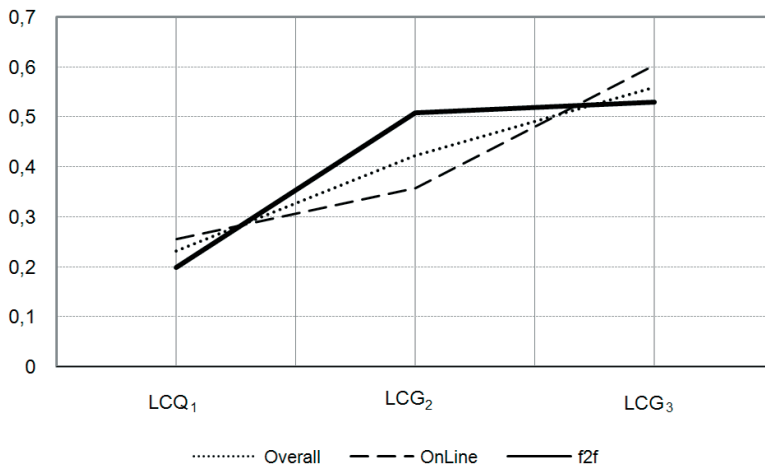

Fig. 1 - The learning curve in master. E-Urbs 2006-2007. Source: Pigliapoco *et al.* (2007).

Scores described by both, the dashed (online) and full (face-to-face), line confirm a decided improvement in the General (dotted line) learning during the overall development of the master. The solid line is growing faster during the first period, while during the second it slow down, but with significant relational effect. For more discussions of results, see: Pigliapoco (2007).

5 The institutional dimension of a transnational master

The institutional dimension has presented one of the most difficult challenge in organizing a transnational programme in comparative studies characterized by a joint degree. Three stages for the institutionalization of a joint degree have been organized: a) apply the Bologna process; b) adopt customized institutio-

nal solutions; c) prepare different agreements with the various institutional partners.

The solutions range from a joint degree between two of the nine universities involved, to a double university degree, to the simple recognition of ECTS obtained by the students during Master by all parties involved.

Administratively, there was the need to create more flexible solutions and ad hoc agreements with partners. Nevertheless, the final diploma was recognized by all the institutions, although in different ways. The E-urbs Consortium has also been able to release a Diploma Supplement, in order to increase transparency and recognition of qualifications across Europe, in line with the Bologna process.

6 The risks of unbalanced learning

Maintaining a dynamic balance between the four aspects of a collaborative learning process can be very complex. If we focus too much on teaching, for example, we will produce excellent materials, but not considering the technical requirements for accessibility, students from countries without a broadband connection, could not access them. Underestimating the institutional dimension, it would not be possible to ensure the achievement of a university degree internationally recognized, making the results achieved less interesting (or not interesting at all) in the European context. If the technical dimension prevails over other aspects, contents tend to be overlooked. In summary, the risk of an unbalanced learning process are:

- Too much pedagogy -> Pedagogism
- Too much technology -> Technicality
- Too much institutionalisation -> Bureaucratisation
- Too much attention to content -> Eclectic Breakdown

It is essential, therefore to connect every aspect, promoting a synergetic effect which overcome the risks just described, and maximize the results in terms of quality and effective teaching.

7 Results

The Master was an experimental laboratory where educational blended theories 2.0 were put to a test. The feedbacks from students regarding the training organization was excellent, also thanks to the fact that the students perceived themselves as protagonists, and not just passive receptors of formative experience: "*It was thrilling to be able to compare the experiences of social exclusion or to compare the ethnic villages which exist in our cities through the*

Visual wiki in the OpenLoL platform". "*We finally lead our learning.*" "*Now I understand what it means to do comparative research together with colleagues, who had now become my friends*"[6].

Considering the highly experimental characteristics of the project, the results can be considered very satisfactory. Some indicators to support this fact: 1. more than 90% of the E-urbs students had completed the course; 2. the final evaluations of the students were very high; 3. the student's learning curve was more than satisfactory; 4. the objective of building a learning community formed by students scattered over 4 continents succeeded; 5. the use of 2.0 methodology was very appreciated.

8 Conclusioni

A collaborative learning strategy such as the one presented here combines a blended approach with Web 2.0 features. This responds to emerging trends in the field which tend to integrate old paradigms of traditional learning with new paradigms based on collaborative social web 2.0.

The main objective of the project E-Urbs Masters was to contribute to the development of an area of higher education of urban studies in Europe, using a collaborative learning strategy.

Students have appreciated "*the opportunity to be part of a "class", the solidarity and the support which we felt, despite or maybe because of the different culture and background, the "pull" effect that helps a lot during the preparation of the exams, an experience and friendships that will last for life*".

The results are gratifying and consistent with our initial hypothesis: a balanced approach not only allows you to manage in a appropriate manner the challenges of distance and trans-nationality, but also promotes a strong sense of community that improves efficiency in learning by building a culture of collaborative learning.

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