Could "blended teaching" be the successful way of educating in a multi-tasking, multi-media and multi-faceted society? A positive experience at the Italian National Institute of Health

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Abstract

The poster will present an innovative successful teaching experience recently carried out at the Italian National Institute of Health (Istituto Superiore di Sanità, ISS), together with the Department of Educational Sciences of the University of Rome. A course on *Models and Instruments of Communication* was organized using, for the first time, a blended methodology based on combining or "blending" of multiple teaching styles *(i.e.* classroom and e-learning). The course was aimed at internal managerial staff, and was highly structured. The mixing of e-learning and traditional forms of teaching can, as in this case, be successful both for teachers and learners alike, provided that they are highly motivated and that the course is properly organized. Blended teaching could be, according to the authors, the ideal way of educating and training of any workforce and in particular of the health library and information workforce, in a multi-tasking and multi-media society.

Key words: Education, distance; Libraries; Teaching.

Introduction

Each single company, organization, institution or library needs to take great care in the continuing education of its employees so as to both foster cultural progress and improvement in results. Illuminated managerial leadership use continuing education as a key to achieving its growth objectives through the use of the most appropriate and modern teaching technologies available. This is particularly true and becomes essential for the employees of public health care, for biomedical researchers and for the health library and information workforce whose mission is strictly related to the dissemination of core scientific research within the community (1-3). Undoubtedly, in the past decades health libraries have been strongly affected by the huge developments in information and communication technologies which have led to the creation of new services and functionalities, innovative methods of linking resources, integrated spaces for information retrieval and powerful database systems. Health libraries are also quickly adjusting their role to the new user's information needs, which are changing in line with the developments of information services (4). All these to better serve the user's community and fulfill their developing information need.

To be better understood, this rapidly changing scenario should be considered as a whole: the culture is changing with the many consequences that this implies (5). Therefore the strongest effort is needed not only in keeping the health workforce (including health librarians) constantly updated, but most of all in providing them with the right tools, methods and skills to manage knowledge towards a long-life, self-directed learning.

It is right within this context that the blended teaching experience carried out at the Italian National Institute of Health (ISS) should be regarded as a successful experiment and a good, flexible example of teaching: an easy pathway to new roles.
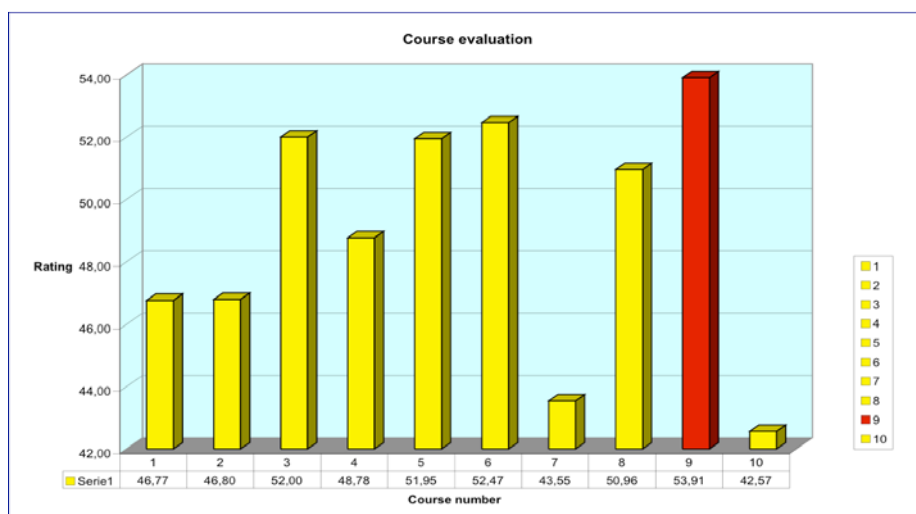
The ISS blended teaching course

Course structure

ISS has recently organized, together with the Department of Educational Sciences of the University of Rome, a course on *Models and Instruments of Communication* using, for the first time, a blended methodology based on combining or "blending" of multiple teaching styles: classroom and e-learning. The course was aimed at internal managerial staff and was highly structured:

- **the first three days** were face-to-face devoted mainly to familiarize, introduce, and discuss about communication models; in this first phase teachers played a major role, although interactive experiences such as relationship tests, fun quizzes, metaphorical experiences, etc. were also used to maximise learning;
- **the following four weeks** were dedicated to sharing information through an *ad hoc* Internet-based platform. The aim was to get acquainted with the use of three online communication tools: chat, forum and wiki. Within a predefined time schedule, each group had to develop a project work;
- **the last three days** were dedicated to sharing the information acquired during the previous phases and for each group to present its project through a PowerPoint presentation.

As shown in *Figure 1* this blended teaching experience was more appreciated than other ISS courses taken in the same year (2006).

Figure 1. ISS course evaluation (the blended teaching course is reported as n. 9).

At the end of the course, each participant was given a detailed assessment which included an evaluation on the numbers and quality of his/her connections to online resources. A list of performance descriptors used for evaluating course participants is reported in *Table I*.

Table I. Performance descriptors used for assessing course participants. Each descriptor was evaluated as: *average, satisfactory, good, very good*.

A. GROUP ASSESSMENT	B. INDIVIDUAL ASSESSMENT
Forum	**Forum**
Pertinence with PW subject	Pertinence with PW subject
Negotiational skills	Negotiational skills
Number of threads initiated by the group	Number of threads individually initiated
Number of answers to tutor's initiated threads	Number of personal answers to tutor's initiated threads
Chat	**Chat**
Number of chats	Number of chats
Usefulness to the PW	Usefulness to the PW
Wiki	**Wiki**
Integration of pages	Participation
Communication skills (language and editing)	Integration in the wiki community
	Communication skills (language and editing)
Use of resources	**PW**
Originality of retrieved material	Individual contents analysis
Usefulness to the PW	Individual contribution to PW design and originality
PW	**C. PRESENTATION ASSESSMENT**
Contents	
Design and originality (creativity)	Accuracy and clarity of presentation
	Communication efficacy
	Quality of presentation

PW: project work

The keys to success

One of the main innovations of this blended teaching experience is the use of personalized online tools: chat, wiki and forum. These allow the learners to acquire knowledge, to test their ability, and most of all to create and maintain a relationship with the other members of the community, which is reputed to play a crucial role for a proficuous work and professional environment (6):
- **the chat** is a tool for instant messaging between participants who are connected online simultaneously (synchronous). Its main characteristic is the rapidity of the exchange of information. Its aim is to create an "edutainment" environment (*educative plus entertainment*) which strengthens the relationship and facilitates both the brainstorming and the personal creative ability;
- **the forum** does not require that all participants are online at the same time (asynchronous). It helps the reasoning, permits the exchange of articulate suggestions and comments, the building and improving of negotiational skills. It helps reflecting on the topic of discussion and builds up the communication "thread". It also creates a historical archive, preserving all the reasoning which led to a certain conclusion;
- **the wiki** is an online tool for shared and collaborative writing. Each member writes on the platform using a different colour, so that the written personal contribution of the single member group does not disappear in the whole. It helps cooperative learning, socialization of the comprehension experience and a progressive construction of the knowledge. User-generated content is becoming a subject of great interest. Revolutionary and easy to use

softwares are being released on the market attracting millions of players for audience-created features (7).

Another innovation of blended teaching – and in general of all methods of teaching to adults – is the role of the *teacher* which is very dissimilar to the traditional one. In problem-based learning (PBL), for instance, he is generally referred to as *facilitator*: a skillful person who assists the group during the whole learning process, facilitating collaboration, synergy, dynamics, dialogues and decisions. He facilitates learning which is "promoted when learners are engaged in solving real-world problems (…) when existing knowledge is activated as a foundation for new knowledge" (8). His relationship with learners is no longer vertical or hierarchical but horizontal, a sort of communication between peers, or between professionals who share mutual respect, trust and understanding. The center of the teaching is no longer the teacher but the professional community of learners who become the main actors of the learning process.

The innovation is also in the way learners and teachers communicate and exchange information. The distant learning plays a central role in blended teaching both on the cognitive and on the relationship aspect. However, while e-learning often results in an impersonal and cold method of learning – sitting alone in front of a video and not in a classroom with your colleagues can easily create a negative sense of depressing isolation – the use of some online tools, such as the chat, wiki and forum used in the ISS course, can deeply facilitate personal communication, the expression of more intimate feelings, the openness towards emotions (through the use of emoticons for instance), the understanding of the individual differences of other group members, the empathy for the other's trouble and the sociability.

That is why when organizing a blended teaching course particular attention should be devoted to the right learning environment. At the ISS, the Moodle platform was reputed to be perfectly suitable for the learner's needs (*Figure 2*).
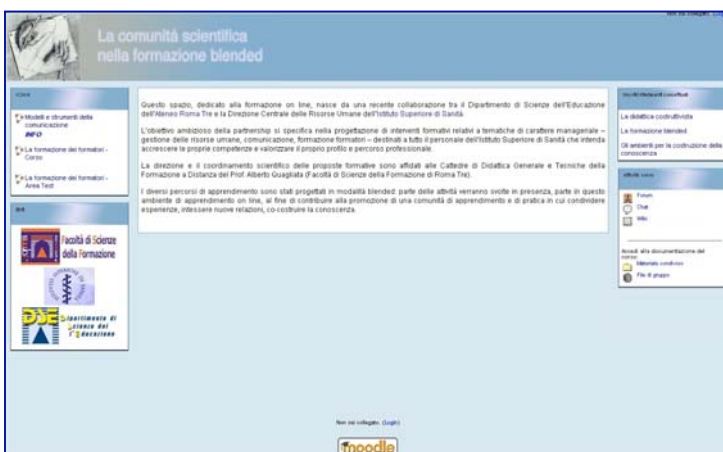
Figure 2. Homepage of the online Moodle platform used for the ISS blended teaching course.

Moodle is an open source software (http://moodle.org/), which helps educators create effective online learning communities. It is one of the most popular software packages for producing internet-based courses, because of its great flexibility which allows personalization of the platform to meet individual needs. It strongly supports a social constructionist framework of education.

Blended teaching: building interactions between people, systems and expertise

It is not difficult to understand why blended teaching is becoming increasingly popular among the different methodologies of adult teaching offered by companies, associations, academies, libraries or institutions.

First of all, it helps building up good working relationships which mainly depend on good communication. Today, in job interviews for manager's positions, candidates are often required to possess good relational management skills more than good management control. The ability to *relate* is considered more important than the ability to *take control over*. This is evident also in the development of Cybernetics (from the Greek word *Κυβερνήτης* meaning steersman, governor, pilot): a science which studies the communication and control processes in the animal and the machine. Founded by Norbert Wiener in the Fifties (9) it initially interpreted the meaning of *governing* as pure *control* for expanding it, later on, to embrace the understanding of the so called *relationship intelligence*.

We all live in a far more complex society than we would have imagined a few years ago. To survive and understand this complexity, traditional teaching methods where students are faced with pre-packed problems to solve are no longer adequate and useful. Even in PBL where problems are the core of the teaching method, they are indeed just a tool to help them "learning to learn" (PBL is not about problem solving). Accepting the concept of complexity means to be able to manage a plurality of systems, information, resources, platforms, methods. Acquiring knowledge means to be able to produce a unique interaction between people, systems, expertise. In other words, reaching multiple goals with the awareness that the whole process can never be *fully controlled* but simply *governed*.

Blended teaching can also help in understanding one's own limits, thinking and identity. The presumption of knowing the solution to a problem before consulting with the other group members often leads to wrong decisions. On the contrary, listening is as important as questioning one's own convictions. A good tip is to include at the beginning of the course a session with practical tests and visual experiences, such as the analysis of optical illusion images which are often deceptive or misleading and can be perceived in different individual ways. The aim is to make people understand that at times what you see and believe is just wrong, or else that a problem's solution might be there but you are simply not in the correct position (attitude) to see it. Quizzes like those shown in *Figure 3* can also be used to teach people to act (and take decisions) outside the traditional schemes (attitude towards change).
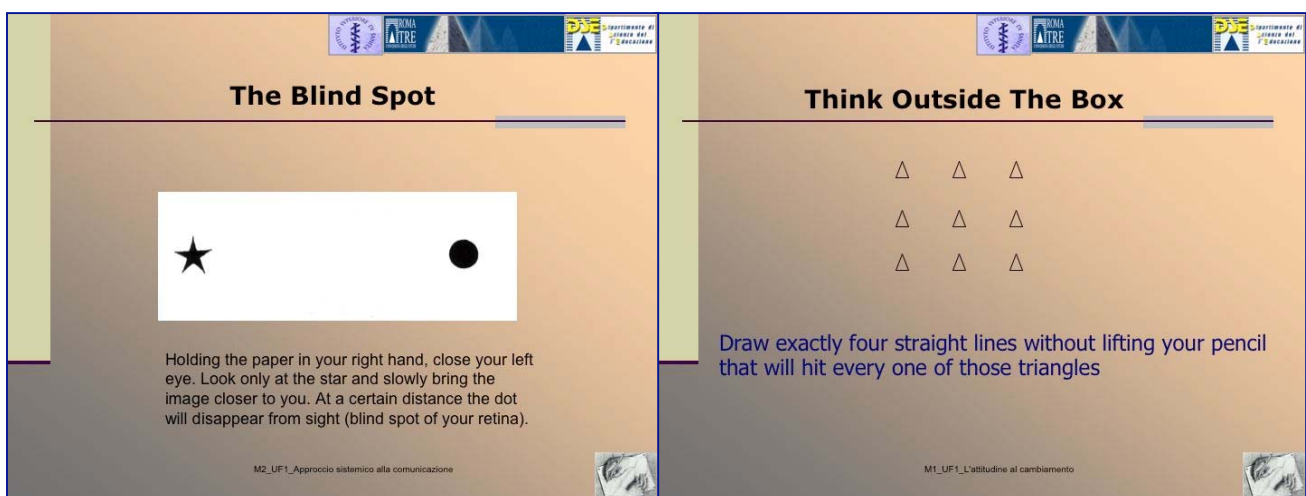
Figure 3. An example of quizzes distributed among course participants, with the aim of fostering an attitude towards change.

Conclusions

Blended teaching will by no means entirely replace other more consolidated and traditional forms of teaching. In a way, it integrates them all by focusing on the concept that sustained continuing education is the key to each individual's development. How? By teaching the importance of interacting and relating; of apprehending in a complex but collaborative environment; of accepting serenely whatever is unchangeable while struggling bravely to change what it is actually possible to change; of using at work those online tools that the new generations are already experiencing in their everyday life.

By creating an appropriate learning environment, blended teaching perfectly matches the culture of today's young professionals who are happily multi-tasking and already perfectly used to browsing within multiple resources, simply because they have been brought up in what could be defined as an "expand-command society".

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