

## The role of collaborative distance learning for people with disabilities

*Authors:*

**Ileana Hamburg**- Institut Arbeit und Technik, Wissenschaftszentrum NRW, Munscheidstr. 14, Gelsenkirchen, Germany, e-mail: [hamburg@iatge.de](mailto:hamburg@iatge.de)

**Miona Lazea** - National School of Political Studies and Public Administration, Bucharest, 1, Romania  
e-mail: [miona@snsa.ro](mailto:miona@snsa.ro)

**Adina Ionescu** - High School "Octav Onicescu", Bucharest, 4, Romania, e-mail: [adina2301@yahoo.com](mailto:adina2301@yahoo.com)

**Abstract:** Collaborative distance learning has a very important role in the training process. In this paper we present the advantages offered by the collaborative distance learning to the disabled peoples and some methods of it realization. A case study - the European Leonardo project EURO-H 2000 is also discussed.

### 1. Introduction

Distance learning has long been a source of training both in higher education as well as in continuing professional development. Though, the update to a distance learning partially or entirely based on Web and Internet course delivery, which requires collaborative work and building of communities as a part of the learning strategy, is emerging rather slowly. These forms should be used within rehabilitation of disabled people to improve their qualification and their social integration (Berg et al., 2002). Education has a key function in the individual life's accomplishments for handicapped persons. The individual's potential, in terms of qualification and knowledge to master job related tasks, is very important.

This paper contains a short presentation of some advantages of collaborative distance learning particularly for people with disabilities (part 2), followed by some examples of forms of communities (part3) and ending with a case study - the European Leonardo project EURO-H 2000 (Hamburg et al., 2001a) (part 4).

### 2. Collaborative distance learning

Distance learning through Internet (e-learning), particularly the Web, provides the rich promise and potential of formal/informal learning delivery at any time, anywhere, on any topic: international courses (fully inter-cultural, with learners-teachers from all over the world), relevant learning efficiency, more learner-centered approaches, just-in-time learning, higher degrees of inter-activity and communication.

These new forms of distance learning particularly offer a number of opportunities for persons with disabilities to overcome certain handicaps (e.g. visual deficiencies, hearing problems, difficulties resulting from reduced mobility). These can be achieved:

- by facilitating the access to new services, new knowledge and new forms of work from any place without having to travel,
- by offering them Web-based learning environments with possibilities to communicate and collaborate with their fellow students and tutors in real time through the use of chat rooms or asynchronously by using discussion forums and e-mails,
- by breaking the isolation that disabled people feel in their life and learning through their integration into a virtual learning community and by restoring a social identity for them through giving them access to work or helping them to maintain a job by improved qualification.

In the following we refer more to 'collaborative distance learning' that means a *situation* in which *two or more* people *at distance learn* or attempt to learn something *together*. Each element of this definition can be interpreted in different ways:

"two or more" may be interpreted as a pair, a small group (3-5 subjects), a class (20-30 subjects), a community (a few hundreds or thousands of people), a society (several thousands or millions of people)... and all intermediate levels;

"learn something" may be interpreted as "attend a course", "study course material", "perform learning activities such as problem solving", "learn from lifelong work practice";

"together" may be interpreted as different forms of interaction: face-to-face in real classrooms or computer-mediated in virtual distance learning environments, synchronous or not, whether it is a truly joint effort or whether the labour is divided in a systematic way.

The different situations mentioned above create objects of study with different *scales*: from 2 to 30 subjects, from 20 minutes to one year. For instance, most empirical research on the effectiveness of collaborative learning was concerned with a small scale: of two to five subjects collaborating for one hour or so. At the opposite end of this scale, the collaborative learning based on the computer is often applied to situations in which a group of 40 subjects attends a course over one year. While psychology provides useful frameworks for analyse learning in small groups, social psychology applies better to broaden groups, and tools from sociology, ethnology or anthropology become relevant for larger scales.

In summary, the words 'collaborative distance learning' describe a *situation* in which particular forms of interaction among people at distance are expected to occur, which would trigger learning mechanisms, but there is no guarantee that the expected interactions will actually occur. Hence, a general concern is to develop ways to increase the probability that some types of interaction occur and to build strategies for collaborative distance learning. One of these ways is the development of e-learning and blended learning communities.

### 3. E-learning and Blended Learning Communities

According to Webster's Dictionary, a community is "a group living in the same area or having interests, work, etc. in common". Most communities (online or off) share a number of qualities and characteristics (Kaplan S., 2002):

- They are held together by distinct operating norms,
- Members are distinguished by their formal and informal roles,
- Trust must be built to ensure quality interactions,
- Shared sense of purpose serves as the glue that bonds the community together.

Additionally the "learning communities" should engage people in a learning process.

Some reasons to consider the building of communities into a learning strategy are the following:

- Communities extend learning by creating a structure where people can learn from "informal", collaborative interactions,
- Communities are a way to exchange practical (tacit) know-how.

One of the problems for most learning experts today is what kind of learning communities are necessary in order to improve the efficiency of the learning process and what are the steps involved in building them.

The Internet facilitates the building of e-learning and e-training communities. Within these communities the interactions and the collaborative learning is carried out entirely through technologies like the Web, conference calls, video conferencing, etc.

In case of e-training communities, the virtual, collaborative learning is focussed on specific topics and determined tools and media support it.

We consider that in a learning strategy suitable for people with disabilities it is necessary to build collaborative "blended learning communities" which integrate online learning and face-to-face meetings, people with disabilities and without them, in order to prevent social isolation.

Blended collaborative learning communities can be:

- ice breakers ones prior face-to-face meetings to accelerate openness, sharing, and collaborative learning,
- follow-on blended communities which extend relationships and learning following a face-to-face training event,
- end-to-end blended communities including both ice breakers and follow-on learning activities.

The main aspects to be taken into consideration when building collaborative communities refer to the members of the community, to processes and supporting technology. So the relationships (interdependencies and responsibilities) within the community including the instructor, subgroups and individual learners should be described. It is important to establish some operating norms and define processes to keep people engaged in collaborative learning (e.g. posting questions and answers within the discussion forum once a week, etc).

One important aspect for the success of a collaborative learning community is to make it easy-to-use. Some features of it are synchronous tools (e.g. video conferencing and chat), asynchronous tools (discussion boards, e-mails, calendar, group announcements), content integration and document management tools.

In our project we began to build collaborative blended learning communities.

### 4. Example

The main objectives of the project "The vocational training by ODL of young people with a locomotory disadvantage - EURO - H 2000 coordinated by the National School of Political Science and Public

Administration, Bucharest, Romania, and having partners from Germany, Hungary and Scotland are:

- qualification of young people with mobility impairments (professionally and in social/political terms) by developing teaching and learning products accessible to them;
- the use of collaborative learning and building learning communities in order to capture informal, tacit knowledge which many disabled people have making it useful also for other group members;
- to ensure the access of the young people with mobility impairments to the computer technology;
- to develop databases on education, training and employment as a public available resource;
- to overcome the artificial barrier to the employment of young people with mobility impairments through the provision of two different categories of training for two main target groups: young people in the 14-28 year range with mobility impairments and employers and workers in job centres and training centres.

The young people with mobility impairments will have the access to three different types of training modules available in a variety of formats including web, CD and hard copy, as follows:

- Basic computer skills, introduction to the web and distance learning;
- Technical and vocational training by open and distance learning;
- Modules on assertiveness training and the rights of the people with disabilities at work.

The basic computer skills, introduction to the web and distance learning not make any assumptions about prior computer knowledge and student's experience, but allow trainees to skip over the basic computer skills section if they have such knowledge.

The topic of the technical and vocational modules was identified from the national study regarding the educational needs and the employment situation of young people with mobility impairments from the countries participating to the project. The topics of the technical and vocational modules have been chosen specifically to cover the gaps in basic education and to give to the students' skills and qualification that are particularly attractive for the employers.

The evaluation and improvement of the modules will be made using feedback, tests, interview, observation and empirical investigation.

The evaluation process provides aspects of planning and development, such as:

- The organization of the workshops;
- Discussion's forums with experts;
- Discussion's forums between employers and young people with disabilities;
- Obtaining feedback from the participants.

An open and distance learning center, which will be named EURO-H Center, will be established in order to continue the activities of the project after the end of the funding period. Some of the EURO-H Center's objectives are:

- to facilitate the access of the disabled people and other users to the results of the project EURO H;
- to update the training modules and write new modules;
- to provide (re) training for people who became disabled later in life;
- to facilitate the exchange of information in the field of qualification of young disabled people by using distance learning;
- to provide short news about the training and the employment of the disabled;
- to provide information about different events and tenders in 2003, the year of people with disabilities;
- to support the development of the virtual communities in order to integrate the disabled people in life and work;
- to encourage contacts and exchange of good practice between different parts of Europe;

The EURO-H Center will have both a physical and virtual location and will be designed to be fully accessible by individuals with any combination of disabilities.

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