DISTANCE EDUCATION AT THE UNIVERSITÉ LIBRE DE BRUXELLES: THE CLEO PROJECT

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ABSTRACT
The CLEO project offers ODL courses in the field of Information Technology to companies of the Belgian-French border regions. The method adopted is based on a combination of self-paced learning using various media (CD-ROM, WWW, video...) and on-site meetings using videoconferencing techniques to keep students in touch across the border.

After introducing the project as a whole, this paper will focus on the most recent course offered, "Knowledge Management", which is taught using the Virtual Campus infrastructure of the Université Libre de Bruxelles. We will then highlight some findings based on participants' feedback.

1. THE CLEO PROJECT
The CLEO project (Charleroi-Lille Enseignement Ouvert) [1] was launched in 1998 by both the Université des Sciences et des Techniques de Lille (USTL) - Ecole Nouvelle d'Ingénieurs en Communication (ENIC) [2], and the Centre des Technologies pour l'Enseignement of the Université Libre de Bruxelles (ULB) [3]. Funded by the European Community through the INTERREG Hainaut / Nord-Pas-de-Calais / Picardie program, its aim is to offer, in the field of Information Technology, ODL courses to companies of the Belgian-French border regions. The course offering includes topics such as network administration, E-commerce or knowledge management.

The ODL setting adopted for CLEO is based on a combination of self-paced learning involving various media (CD-ROM, WWW, video...) and on-site meetings resorting to videoconferencing techniques so as to keep students in touch across the border. This method is the one used successfully for years by the ENIC in its TutTelVisio program [4], ancestor of TutTelWeb [5]. Self-paced learning materials are distributed to the students at the beginning of each session. The medium itself can vary from one course to another: according to the needs of specific courses, resources made available to the students can include traditional paper-based course notes, videotapes, multimedia tutorials on CD-ROM and/or web-based training materials. During the whole period dedicated to self-learning, a tutor can be contacted through e-mail.

On-site meetings are scheduled thrice during the three weeks duration period of any given course: the first meeting is short (2 hours) and starts the course; the next two occur in the middle and at the end of the course respectively, and bring the students on campus for one full day of face-to-face activities. As students can attend the course on both sides of the border (Charleroi in Belgium and Lille in France), room videoconferencing is used to keep the two distant sites in contact all along the day.

2. THE KNOWLEDGE MANAGEMENT COURSE
We shall focus hereafter on a specific and recent example, a course on “Knowledge Management” which was offered for the first time in June 2000 [6]. The course was followed by 20 people from several companies or non-profit organizations. We shall first describe the setting available to the students, and then concentrate on some findings based on the participants’ feedback.

The “Knowledge Management” course was designed as a web-based training environment hosted by the Virtual University of the Université Libre de Bruxelles, a virtual campus set up in 1998 to centralize WWW resources supporting and enhancing traditional lectures [7] [8]. The environment included the following resources and tools:

- a calendar giving the detailed program of the on-campus meetings, and suggesting deadlines for the completion of each of the ten course units;
- a page describing, unit by unit, all the course activities (readings, quizzes, on-line discussions, etc.);
- course notes, in the form of browsable and searchable Powerpoint slides enriched by numerous external links;
- on-line quizzes about several topics;
- an internal e-mail allowing every participant to get in touch with each other without the need of knowing e-mail addresses;
- a bulletin board for online discussions;
- references and links.

The students also received a printed-out version of the course notes.

Illustration 1: The Home Page of the "Knowledge Management" course

The course was designed so as to involve students in many kinds of different activities beyond mere reading: exploring web sites, taking online quizzes and surveys, discussing suggested topics or posting cases to the bulletin board, etc. The same concern guided the preparation of on-campus meetings, where students could attend guest speakers' presentations, product demonstrations, or even participate in a kind of role playing game on the role of cultural factors in the sharing and transfer of knowledge.

3. FINDINGS

The 20 people who attended the course were asked to fill in a questionnaire concerning different aspects of the course itself, as well as their learning experience; 15 of these questionnaires were returned. As a whole, the feedback was very positive for the course (3.5 out of 4), the web site (3.36 out of 4) and the method (3.29 out of 4). We shall hereunder highlight some specific findings based on the feedback received.

3.1. Resources and tools

Since students were provided with both a paper and an on-line version of the course, we were eager to see to what extent, and in what circumstances, they would use one or the other.

Three participants declared having just read the paper version of the course notes (two of them say it was easy to carry the notes with them, for example in the train). No one used the web site only.

Most participants (11 out of 15) used both the paper notes and the web site, and found they complemented each other very well. The reading assignments were made with the paper notes, whereas the WWW was used for communication (mail, bulletin board), for interactivity (quizzes) and for external links.

3.2. Time management

It may sound like a paradox to ask for 2 ½ days of physical presence in a three week long ODL course. We were ready to hear complaints about the necessity to come three times to the campus, but none came: when students were asked if they would like less time of physical presence, their answer was globally “no” (1.5 out of 4, where 1 means “strongly disagree”). The opposite question (more time devoted to on-campus activities) received a very neutral note of 2.65 – seeming to indicate that students are just satisfied with the time schedule offered.

Another interesting question concerns the time and place of self-learning activities: do students learn at work, during working hours, or before/after? Or do they rather work at home? Five people out of 15 said they used to work at home or at work but after working hours, thus taking on their free time to learn (though all of them were sent by their company). On the other side, we found only one person who followed the course during working hours only. The majority worked at home and at work, during and outside working hours.

Last but not least, time management remains one of the most important problems met by our ODL students: ten of them, out of fifteen, agree or strongly agree when presented with the affirmation “Time management was a problem for me”.

3.3. Isolation

ODL students are more vulnerable than others to a feeling of isolation which may prove demotivating. In our questionnaire, we included a question about this issue. It appeared that only two participants found that the feeling of isolation had been a problem during the course. Surprisingly, this feeling appears to have no real impact on their overall satisfaction: both of them declared themselves satisfied, or very satisfied, with the experience. We can suppose that the whole setting (including tutoring, bulletin-board based activities, and on-site regular meetings) helped to prevent the possible negative impact of working alone.

3.4. Persistence

We know that in ODL programs, the relatively high drop-out rate is an important and complex issue [9]. Interestingly enough, all the participants completed the ‘Knowledge Management’ course – no one abandoned. The same finding applies to former CLEO sessions: the overall drop-out rate is less than 5%. Though it is always
hazardous to suggest cause-effect relationships, we can suppose that regular on-site meetings play an important role in reducing the drop-out rate. The period itself (three weeks) seems to be long enough to allow students to pace their learning with sufficient freedom, and to be short enough to prevent “I’ll do it tomorrow” reactions.

4. CONCLUSIONS

The ODL setting used for the CLEO project - a combination of tutored self-paced learning and regular on-site meetings over a three week period - seems to be successful. In the course we focused on, the satisfaction rate for the course itself, the web environment and the method is high. As in most ODL programs, time remains a major concern for most participants, and most of them must take on their spare time to learn; they obviously manage to overcome the problem, however, as the drop-out rate is near to null. Even the few students who suffered from isolation completed the course and declare themselves satisfied with the experience. Research on further CLEO sessions will show if these findings can be somehow generalized.

5. REFERENCES