Life Long Learning and solutions for International Collaboration in Training and Education using Hybrid e-learning

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Abstract: This paper describes the principles and the strategy adapted by the University of Versailles and St. Quentin en Yvelines to provide Long Life Learning services. Different programs have been developed with North Africa and South America to provide validated French degrees for students abroad in the framework of a partnership with selected local higher education institutions. The process works by ensuring that there is a French professor in charge of each module or teaching unit of the degree programme who works in collaboration with a local professor. The French professors work in France using the university e-learning platform and can visit the foreign institution to give individual courses or help with the evaluations. The programme for the professional Bachelor's degree in Administration and Network security has been adapted for this type of hybrid e-learning.

Key words: Life Long Learning, Hybrid e-learning, International collaboration

INTRODUCTION

Economic crises, social changes and technological progress have increased awareness of the need to frequently evaluate one's professional activities and skills and encouraged the trend to continue professional training throughout life. The trajectories of each person's life will often be characterized by a continuum composed of several periods of retraining to update knowledge before returning to employment. This process is generally referred to as Life Long Learning.

Life Long Learning (LLL) is a broad concept that includes all dimensions of education, whether formal or not, original or not, and has become an individual and collective challenge for companies and society in France over recent years.

Before the events of 1968 in France, the higher education system for engineers was dominated by the Grandes Ecoles, which applied rigorous standards of selection for candidates and provided an elite of engineers on qualification after their 5 years of study for their Engineering Diploma. Failure to enter one of these schools meant that candidates had no other alternative than accepting a place at a university, knowing that the Bachelor's degree (or licence) was not as highly prized by industry as the engineering diploma. The universities did however have the advantage of being the only institutions where you could obtain a PhD, which meant that research teams were essentially linked to university activities.

In 1972 the University of Technology of Compiègne was created which was the first university to be a "Grande Ecole" and university at the same time, granting both Engineering Diplomas and PhD's. Since then, many universities have established engineering schools within their structure and have also developed new diplomas in their IUT's or technical institutes as well as professional Bachelor's degrees and Master's degrees in technology. These have proved attractive for persons seeking to improve their qualifications and employment prospects and changed the balance of educational prospects in France for those who wish to complement their education through the university system.

In this context the UVSQ has been able to develop a set of integrated and flexible solutions for both requests for additional training made directly by the persons concerned as well as those expressed by businesses and other institutions as part of a forward-looking management of jobs and skills [1,2]. The universities have become, in this context, major territorial actors in the LLL process for the following reasons:

- University courses provide the basic skills necessary to construct the bases of a sustainable career path.

- Universities are, through their research laboratories, institutions of knowledge production and dissemination,

- Finally, the multi-and interdisciplinary approaches that are currently being developed are the means to address the complexity and integration of integrating new skills that characterize many contemporary jobs.

In this context, the creation of facilities to provide LLL and the development of these activities, have become major strategic focus points for universities.

This challenge for all national economies, in fulfilling the territorial role that universities and higher education have in general, is how to share this experience through the development of international cooperation and address the complexity of needs to accelerate their implementation.

LIFE LONG LEARNING

LLL refers to the possibility accorded to any individual, throughout his life, to acquire knowledge, skills and competencies and to recognize the value of experience in a civic, social and professional personal perspective. It is embodied in the concept of a universal right to education throughout life, relying on a set of training devices for different audiences.

This broad definition involves a change of perspective for all players in the French education system. In fact the demand for life long learning is characteristically heterogeneous, recurrent, targeted and personalized and affects the entire population.

To this end, LLL services are organized around guidelines, in the form of a personal project, offering everyone a set of solutions inspired by an approach based on the acquisition of skills and competence with integration of the use of information technology and communication.

All training leads to the acquisition of skills, which may be classified as follows:

- General and specialised skills associated with diploma and degree level studies (DUT (technical diploma), Bachelor, Master or Doctorate) that provide the fundamental bases which guarantee the possibility for each candidate to develop their professional career;

- Disciplinary and professional skills, allow candidates to move towards areas of professional practice.

For each of these types of course, training is divided into 3 phases:

- A positioning phase to introduce the approach, specify the project of the applicant, and define the educational approach (possibly including the validation of acquired in work experience) inform the beneficiary of the training process and confirm their commitment to the programme approach;

- The phase of training with the implementation of the learning agreement;

- An evaluation phase for certifying the skills acquired.

This approach allows us to provide each trainee with a variety of teaching methods, customized to their needs, according to their learning profile and their specific constraints [3, 4].

This approach has been developed for several courses offered using several teaching methods (classical-face to face, alternating classes and industrial training and distance learning) to meet the diverse needs and types of candidate for LLL.

Setting up schemes for international collaboration should be part of the process of sharing and exchange of educational experiences between several partners. This involves the maximum use of existing educational resources and/or the sharing of practices that enables the maximum use of e-learning platforms.

SETTING UP A SCHEME FOR INTERNATIONAL COLLABORATION

Modelling a scenario of international collaboration based on a standardised diploma curriculum in its static and dynamic dimensions is a complex task. This scenario is the result of a multi-competences and multi-stakeholder response, which must be supported by methods, design techniques and tools to ensure the quality of teaching. These methods, techniques and tools are different from one country to another, and causes problems of interoperability that reveal the complexity of the implementation of this kind of scenario [5, 6].

This scheme must be based on the overall training that is characterized by the following types of context:

- The learning objectives (broken down into a set of skills).
- The type of audience: classic, alternating (professional contracts, apprenticeships) public service training (employees, the unemployed, or those validating the competence acquired in previous work experience, etc.).
- The spatial and temporal conditions of training (face to face presence, distance learning and hybrid situations).
- How to assess skills (Tutorials and practical work, exams and tests, MCQ's , simulations remote projects and reports, situational analysis, presentations...)
- The contingency factors associated with the sociocultural and socioeconomic equity partner.
- The types of certification for learning outcomes that can be validated during the course of training (university certification of one or more skills, professional certificates (CISCO, TOEIC, NETASQ) a university degree, or a national diploma).

The goal is to define and analyse the collective learning situations of each partner in these training schemes in their context. This will enable us to identify a number of common elements to characterize the variations of the learning process into one or more possible paths for the learner and converge on a pedagogy aimed at developing both professional and soft skills [6,7]

THE PHASES OF INTERNATIONAL COLLABORATION IN EDUCATION

The methodology developed for our international collaboration in education consists of two phases.

The first phase includes the following steps:

- Decompose the course of training into teaching or education units (EU);
- Set up the scenarios and scan the contents of each EU
- Define in terms of EU competence;
- Provide a means of assessing these skills.
- Provide a certification of those skills
- Create a workspace on the e- campus platform (UVSQ) for each EU
- Define and implement validation procedures.

Both methods allow us to take into account professional and/or personal experience for the award of degree: the validation of professional experience (VPA) or access to training without holding the prerequisite qualifications. The validation of acquired experience (VAE) can be included to count for all or part of a degree).

The second phase of our international collaboration in education is to identify a foreign partner with the tools and support resources required, according to the following steps:

- Identify and analyse the ability of a specific training partner to meet the academic and practical requirements for training.

• Create a working group or pair of professors for each selected EU. It will consist of a French professor from UVSQ in charge of the EU and an academic partner in the local institution, with expertise in the field. These teachers will work together to adapt the contents to the context of the partner institution and eventually including the translation of this content into another language. Each partner will therefore have access to multilingual distance learning content to expand the provision of professional training to a wider and diverse audience;

• Share the contents of the different EU's between the French and foreign teachers. This allows for more collaborative opportunities for teaching and assessment, for example:

- The French teacher can provide the distance learning content and the partner will undertake tutorials, practical work on-site in the foreign partner institution.

- The French teacher can also visit the partner institution to give some classes in addition to the e-learning components he supplied when the partner does not have an expert in the field.

- The examinations and validation of competence can be organized in the premises of the partner in the presence of French teachers, if necessary,

- The partner teachers can move to France to participate in classes and share knowledge and pedagogical expertise.

- Projects and internships may be organized in France or in the partner institution in the mobility of learners.

- Project presentations may be held by videoconference or face-to face in the presence of the French and foreign teams;

• Establishing the schedule of the training can take place as follows:

- A half-day reunion at the beginning of training for the presentation of the approach and a simulation of handling the remote interface.

- Open access is then provided to the resources of the e- campus platform of the University of Versailles St Quentin en Yvelines.

The resources available are: on-line courses, exercises and tests, work and case studies and background references etc... In most cases a printable version of the modules is proposed. Further information on their progress during the training will be offered to learners, especially

- Detailed lesson planning, tutorship of interventions and methods of assessments for each EU

- Implementation of educational support by an expert associated with communication tools Tutoring through different means (email, chat, forum..) throughout the learning process. A process of continuous improvement of the system is planned.

CONCLUSIONS

As part of our training programme on " Administration and Network Security" we applied this scenario for international collaboration with the schools of the MIAGE Group at Rabat and the BMHS School in Tangiers. So we have two groups relocated to Morocco after our training in the model scenario presented above. The two schools concerned share the teaching responsibilities in the way we have described, but with different levels of assistance from France depending on the competence of the individual staff in each educational unit.

Our goal is to extend this model to other French speaking countries, particularly in North Africa.

Along the same lines, we are currently building a collaboration with the Instituto Universitario License de Tecnología Cristóbal Mendoza (IUTCM) and the Universidad Nacional de Cuyo Mendoza and with Universitaria Institución Salazar y Herrera of Colombia as part of the Euro-Latin American network after a meeting with REAL. These two institutions are very interested in developing a partnership with the IUT of Velizy,

based on the professional Bachelor degree programme (LP or "license pro") "Networks and Telecommunications". The scheme for this future collaboration follows the same steps previously described in the scenario for international collaboration.

These courses will meet the needs of middle management training for both initial and in-service training.

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