
TOWARDS A CRITICAL MASS OF GOOD PRACTICES IN ODL : A POST GRADUATE DEGREE AND A YEARLY COMPETITIVE CALL

POUMAY Marianne, University of Liège - LabSET, DUPONT Chantal, University of Liège - LabSET,
LECLERCQ Dieudonné, University of Liège.

***Abstract :** In Europe, one of the current challenges is to reach a critical mass of quality ODL courses, in order to allow for dissemination of best practices in local languages. This article presents two parallel initiatives contributing to that deployment of quality ODL : a research and development project and a post graduate degree. It first proposes a definition of quality in ODL, then underlines the commonalities between those initiatives, presents their strengths and illustrates the pedagogical principles behind them as well as behind the 33 courses developed so far. It finally tackles the challenges faced in enabling the faculty teaching staff to use the web as an instructional tool and platform for learner centred instruction.*

1. The context

Wallonia, a French speaking region of 3,5 millions of inhabitants located south of Belgium, has invested in a wide fibre optic infrastructure along the highways with local loops dedicated to private organizations and public institutions. Electronic commerce, tele-business and distance learning are then considered as main issues to generate traffic on the new fibres. In this context, in 1998, the University of Liège has launched the LabSET, Support Lab for Telematic Learning, a 27 people research and development unit. The LabSET works towards the deployment of ODL inside the University (Virtual Campus), but also with many external partners. Europe being in the first stage of ODL development, in comparison with the USA, the challenge faced is to reach a critical mass of quality courses, in order to allow for dissemination of best practices in local languages (French in our case).

2. Towards a critical mass of quality courses

Following Bates (2000, 66), we consider the current approach in ODL design and production as “too hit-and-miss. It wastes resources, ignores the experience and many lessons that have been learned (...) and above all fails to ensure high-quality technology-based teaching in any consistent or widespread form.” Our paper presents two initiatives aiming at producing a critical mass of quality courses that participate to the dissemination of good practices in ODL, avoiding the “Lone Ranger” approach described by Bates.

Our definition of “**quality courses**” is the following :

“Courses where the objectives are grounded on learners’ well analysed needs, include motivational (affective) components as well as cognitive ones, are aimed by methods chosen on the basis of sound and explicit theories, are assessed (their attainment) by relevant and ecologically valid processes and tools giving rise to meaningful and diagnostic indices ...and are fulfilled in a large degree”.

Methodologically, to reach this objective, we try to apply the **principle of isomorphism**, i.e. have these trainers live with us what we recommend them to achieve with their own students. This principle of isomorphism has various implications such as :

- 2.1. A **“Project Based Approach”** (PBA), has been adopted from the start (the selection phase). It consists in requesting the participants to specify their project. This clarifies each others’ responsibilities and roles. This is based on Kolb’s (1984) theory of experiential learning : adults learn by observations from their experiences, then abstracting or theorising, then experimenting, observing the results...and the cycle goes on.
- 2.2. A **combination of training and course production** to be efficient in PBA. Therefore we try to deliver “just in time” information, so that it could be immediately exploited in their own ODL course development. As Knowles (1990) stated, adults are concerned with the usefulness of theories, with their applicability.
- 2.3. A **priority given to activities** applied to contents (and not a priority to contents alone) in the methods we implement. From Dewey (1900) to Piaget (1974), theoreticians of education demonstrate the importance of learning by doing and of education to life by life.
- 2.4. A **situated learning approach**. For instance, we encourage the educational designers to insert their contents into problem solving contexts, we use and promote case based learning methods (Poumay, 2002). From Tulving (1983), it is recognised that episodic memory (from real or virtual lived sequences) help strengthen memory mechanisms.
- 2.5. The **use of dialectical debates** (in order to favour the interpersonal enlightening, personal mental restructurations of conceptual networks), since Doise and others (1978) have demonstrated that those methodological options are fecund both on the cognitive and metacognitive side of learning and on the affective one.

Two parallel and convergent projects are described hereafter : FORMADIS and FORMASUP. Their commonalities will be illustrated by extracting examples from one of them or from both.

3. Two parallel initiatives

3.1. A yearly competitive call (the FORMADIS initiative¹)



In 1998-99, the Walloon Region of Belgium has asked the LabSET to conduct a study advising the stakeholders on the choices and steps to make towards a Walloon Virtual Campus. Following this study, a competitive call has been launched in 2001 to select 13 projects to be closely coached and turned into on-line active courses. The selection criteria would guarantee

the representation of diverse target publics (age, socio-economic origin), types, status and activity sectors of organizations, types of objectives, sizes, main focus and contents of the foreseen services, etc². In addition to the variety, those criteria also largely focussed on the quality of the proposed methodology (priority is given to activities, problem solving, case studies, dialectical debates,...), on the “demultiplicative” aspects of the new services, on the quality and originality of the contents and on the candidates' motivation. Training, is provided half at a distance, both in technology and in pedagogy (minimum of 160 course hours) to two persons from each selected organization. The new distributed learning services produced through this program will be linked in 2002 to the new Region’s Gateway.

¹ Supported by the European Social Fund and the Belgian Ministries of Education and Professional Training.

² Examples : a post graduate course in Bovine Echography, a course in risk prevention for trade unions representatives, a course in double accounting for SMĒs, etc (see also further down the list of contents).

Building on the success of this first call, a second one has been launched in March 2002 (still running). It has selected 10 new projects to be closely coached on the same model, to produce a second set of quality courses.

Between the calls, open seminars participate to the dissemination of “best practices” in ODL through demonstrations of the achieved products, through discussions on their uses and on the added value perceived by their actors (trainers as well as users) and through critical thinking in order to continuously improve the process.

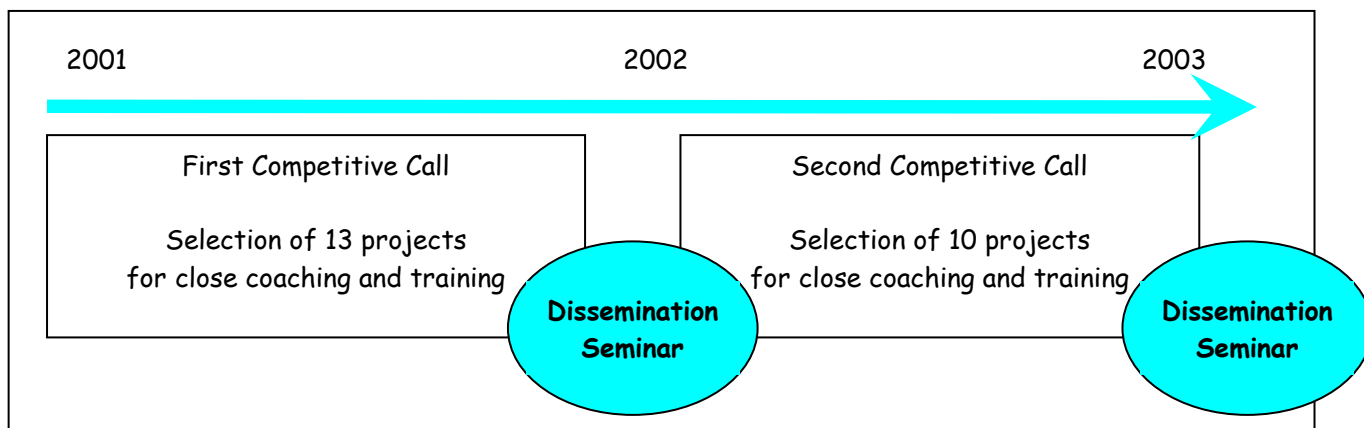


Figure 1 : Yearly competitive call for a massive production of quality ODL

3.2. *A curriculum in ODL design and development (the FORM@SUP initiative)*



Parallel to that massive production, the University of Liège has launched in September 2002 a postgraduate degree (called FORM@SUP) in Higher Education Staff Development with one of the three orientations dedicated to ODL design, production and delivery. Coordinated by the LabSET, the degree will aim at the same objectives than the above mentioned yearly competitive call :

the production of quality courses in local languages over the Internet. The main difference between the two initiatives is that the postgraduate degree provides less individual support and more on-line courses to the participants than the FORMADIS initiative. The degree is therefore better suited to those professionals who are already familiar with self-learning and more autonomous in project management. This degree also acts as an incentive (due to formal accreditation) as well as recognition for the involvement of the faculty members and external trainers in the continuing improvement of their courses.

As in FORMADIS, a wide content diversity is observed, every course concerning a different speciality.

4. Commonalties between those two initiatives

4.1. *Common steps*

To deeply transform the existing traditional courses into active ODL courses, we engage with each selected organisation / trainer into the five following steps, illustrated by the FORMADIS homepage (hereafter):

- Needs analysis (to clarify the objectives, constraints and available resources for each course)
- New definition of the instructional design of the course (core part of our action)
- Graphical and technical (software) developments
- Clinical Testing (experimentation) of prototype on limited groups (Learner Verification & Revision). This continuous evaluation of the innovation process allows for regulation and improves communication between the development team and the trainers / professors involved.
- Evaluation of the developed course and of its use in a first session, with (depending on the course design and objectives) pre and post-tests scores, attitude scales, interviews etc.

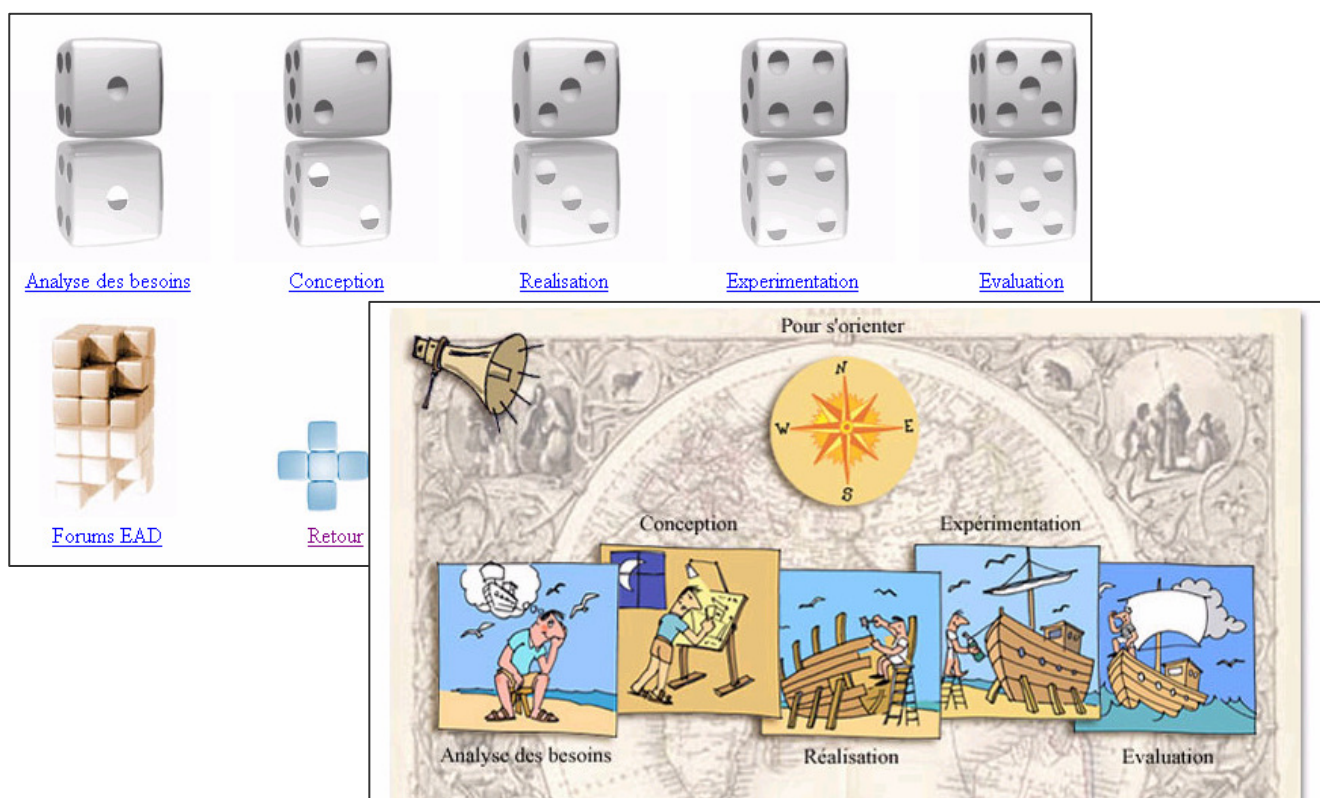


Figure 2 : the 5 steps of ODL design and development
Screen shots from FORMASUP (upper) and FORMADIS (below)

4.2. *Common issues and objectives*

We encourage the professors, by working on their own course with the help of instructional specialists, to move from a traditional way of considering their course to **a more open view** of what it could be. It means that they envisage more possible options and are influenced in the way they analyse those options. For example, they often deepen their reflection on evaluation, being more and more aware of the result of their choices on the kind of knowledge and skills they are testing, being aware also of the necessary coherence between objectives, methods and evaluation. We also try to impact the quality of the courses by introducing contextualised activities including for example problem solving, peer reviewing, role playing and case based methodologies. This modelling is intended to foster transfer to their own context, sustainable innovation and deep change.

4.3. Commonalities in theoretical contents

4.3.1. A **common framework** (on the web) is provided for each of the five “steps”. Those contents are often supported by multimedia resources such as a videos of the professor explaining those concepts.

For instance, a model of 7 learning / teaching paradigms is suggested to help professors conceive strategies as well to analyse existing ones. Each of these paradigms (Poumay, 2001 ; inspired from Leclercq, 1998, 80) is defined by two words, one specifying the trainer’s role and one the learner’s one. In three of them, the trainer has the initiative (trainer-driven paradigms - T), and his (her) role is cited in first place, the learner’s role being cited in second position. In three other paradigms, the learner has the initiative (learner-driven ones - L) and his (her) role is cited in first position. In the last paradigm (debate), initiative is shared.

- (1) Modelling (the trainer’s responsibility - T) and imitation (the learner’s process - L)
- (2) Transmission (T) and reception (L)
- (3) Guidance (T) and Practice (L)
- (4) Explore (L) and Document (T, i.e. provide resources, documents, answers to questions)
- (5) Experiment (L) and React (T, i.e. provide a reactive environment)
- (6) Create (L) and Support (T, to help stand the anxiety of targeting a goal often judged as inaccessible).
- (7) Debate : between the learner and an other learner (peer debate), the learner and the professor (but positioned at a level of equality), one learner and the whole group, etc.

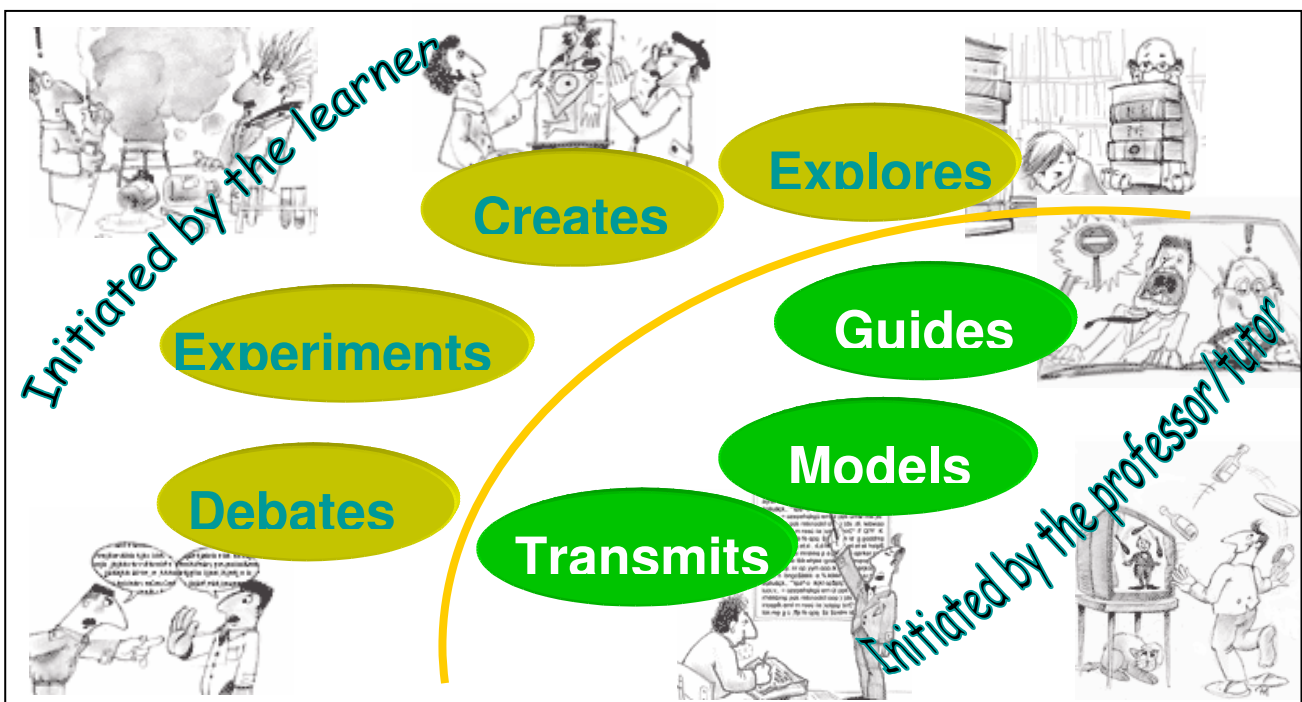


Figure 3 : the 7 teaching/learning paradigms

4.3.2. **Key questions** are often addressed through case studies, theoretical questions are usually driven by success factors issues. Depending from the module (one of the 5 steps), these questions range from how to foster participation at a distance to how to evaluate the success, how to define quality criteria, how to vary the methodologies, how to deal with legal issues, what differences to make between undergraduate, graduate and postgraduate levels in terms of methods and evaluation, which technology to use, combined with the integrated platform, to serve the objectives of the course, to how to bring a real added value to a distance course, etc. They build on running ODL Pedagogical Design courses and activities.

- 4.3.3. **The technical content** is conceived in order that all the trainers/professors should be able, once their on line course is developed, to give access to a new student, to add a page or review part of the course, enrich the glossary, to add a bulletin board discussion topic, to add a quizz or some questions in an existing pool, to display and analyse a quizz results distribution, to post a message to all their students or to some in particular, to scan a newspaper article and integrate it right away, to integrate a new activity, to modify the calendar, ... all sorts of actions that maintain the course and keep it alive.
- 4.3.4. **Sharing of experience and debates** : participants are invited to share their experience through open seminars (4 per year, on thematic issues). By “open”, we here mean “where all the persons involved in teaching activities (professors, assistants, ..) are invited to join”. Such one day seminars often proceed as a succession of colleagues sharing their experience and telling the innovations they have introduced in their courses, followed by a general debate on the basis of this presentation. For instance, a professor having introduced new evaluation principles explains his students’ reactions, his difficulties in implementing the innovation, the experienced added values etc. The debate generates SWOTs analysis (Strengths, Weaknesses, Opportunities and Threads).

4.4. *Commonalities in methodologies*

- 4.4.1. **Activities are put to the fore.** Those activities are partly (about 70%) organised at a distance. Some include a face to face situation, either because organising them at a distance would be too time and energy consuming regarding the expected added value, or for pedagogical (added value due to tracking, asynchronicity,...), human or social reasons (group building).

Examples of activities are :

- Simulated professional situations (on the Web site, requesting decisions and actions) ;
 - "Dialecti-Cases" (arguing with theoretical arguments on practical issues in discussion forums) ;
 - "Reciprocal Multimedia Activities" : creating a challenging situation (such as distinguishing between a real and a forged multimedia commercial designed on purpose by a peer) and answering a peer's challenge ;
 - "Reading-Question-Answers-Tests" replacing the traditional lectures.
- 4.4.2. **Modelling of the participants.** Approximately 150 course hours, related to the five steps of the course design, are planned over a 10 months period of time. For each of the activities, the professors themselves (target public of the course) are exposed to a variety of teaching and learning approaches : they create, explore, practice, experiment, imitate, receive and debate (see upper, the 7 fundamental learning / teaching paradigms).
- 4.4.3. **Critical analysis** of each of those learning experiences is requested. The professors consider whether they could apply them to their own practice -how, when and why-. If appropriate, they immediately transfer the new experience to the development of their own ODL course.
- 4.4.4. **Wide use of educational technologies.** The WebCT platform provides the professors with the usual communication tools (e-mail, bulletin board, calendar), but also with a detailed planning of the distance and face to face activities, precise descriptions of the objectives and sequence of each activity, multiple links to deepen pedagogical and technical resources, practical tools corresponding to the ODL design steps, slides and videos presenting some theoretical points or examples of good practice, tests allowing for feed-back loops and regulation of the course, etc.

Videoconference is also used, to have international partners participate as invited experts to some debates and case analysis. We illustrate the course through a few screen captures hereafter.

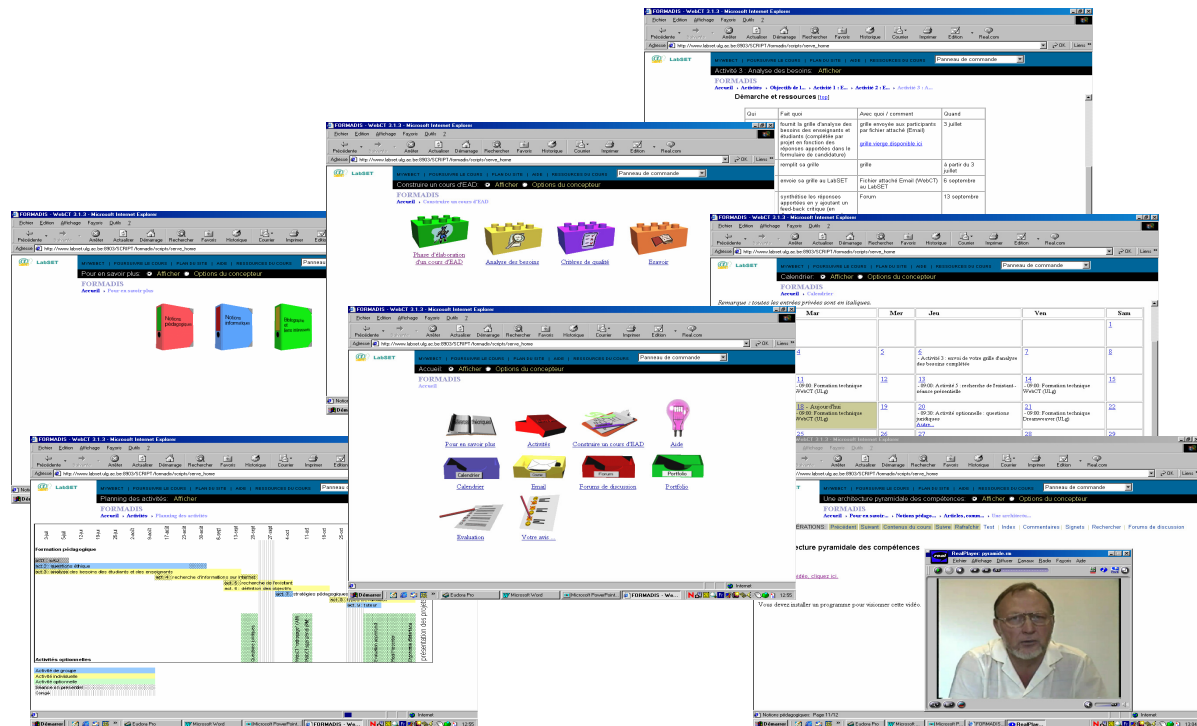


Figure 4 : Some screen captures of the "Training in ODL Pedagogical Design" curriculum

5. To conclude

The critical mass of ODL courses is not yet reached, but really in progress. At the end of this year, 33 courses will have been generated by the two programs. In order to illustrate the diversity of the course contents, we list hereafter the course subjects of the 13 first FORMADIS courses : *Mathematics, Introduction to Typography, Creativity for SMEs, Tropical Bromatology, Environment, International Marketing, Simulation of product launching, Risk prevention, English, Spanish first level, Bovine Echography, Phytopatology, Accounting for SMEs.*

Apart from this basic diversity of contents, we usually consider the diversity in the methodologies as one of the quality indicators for an on-line course. For instance, amongst the 13 distance courses listed upper, there is a diversity in the deployed methodologies, showing that the methods are really chosen for their coherence with the objectives of each professor and not with a universal model forced by our FORMADIS or FORMASUP programs, showing also that distance courses can be really active and foster learning in a constructivist sense³. This quality indicator based on diversity opposes the courses we develop to those monolithic and stereotyped modules proposed by some operators⁴.

ODL deployment is on its way, with quality as a main focus. However, we noticed that enabling the faculty teaching staff to use the web as an instructional tool and platform for learner centred instruction face some inevitable challenges :

³ We also measured the diversity of the methodologies used by the FORMADIS and FORMASUP participants in their own courses, using the 7 teaching/learning paradigms model to characterize each of the activities.

⁴ Note that some stereotyped modules can be effective, depending on the objectives of the operator.

- Hidden agenda : what are the trainer's (or institution's) real motivations to complement a course with an on-line environment ? Is it always student centred ?
- Faculty involvement : how should the institution as a whole be involved, in order to get a collaborative relationship between team members, a real community of practice ? Which institutional recognition can be foreseen ?
- Web-based instructional delivery is highly labour-intensive i.e. providing technical and pedagogical support, organisational and administrative leadership, negotiating incentives (financial, human resources, time, etc.). How to make it sustainable ?
- Rethinking pedagogy : example of good practices are necessary to illustrate what we see as bringing a real added value to conventional teaching... but formalising those practices takes time and energy. How will we face that challenge ?
- Maintaining Student motivation : which strategies should be implemented in order to increase students' involvement and interest or to maintain them after the period of novelty seduction ?

We continuously analyse and discuss those challenges to better face them by offering a strong support to willing staff members, by evaluating the courses, by training in ODL pedagogical design as well as in technology, by opening up discussion spaces for faculty members and external trainers and, last but not least, by setting up new international collaborations.

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