

MODULE 19

HOW TO REALISE AN E-LEARNING COURSE

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Objectives

In the unit named “methodologies” we provided you with theoretical indications on the principles linked to designing an e-learning intervention. In this unit we will try to give you specific practices for realising the intervention.

At the end of the unit you will have acquired notions on:

- how an e-learning course is realised
- what you will need to prepare a good course: from tools to resources
- the type of commitment and relative costs for each design and realisation
- monitoring of the intervention

FROM IDEA TO PRACTICE

“Every thing in its place, and every place to its thing”

You're now at that stage where it is clear in your mind the content of the course, you have obtained information on future course students (target), you've researched the net and found further readings (library), decided the sequence of the subject matter (heirarcy, sequential, reticular) now you must put your ideas into practice. If you were to make up a course in a traditional setting you'd be done. This course is instead for FAD.

HOW IS IT DONE?

Above all you must be informed on the technical features of the platform: you cannot do everything you choose. There are for example platforms that do not allow to conduct free search of content within the course because it creates problems in monitoring and report drafting. A good course must be conceived – regardless of whether there is a tutor or not for didactic assistance – in a selfteaching modality, that is in linear mode, with a structural logic that allows easy fruition by the user and an appealing graphic that makes access to various pages and sections easy.

We advise you to allow for an introductory page where you can describe the page architecture to the user, the location of the navigation bar, how to access the various services, which the chat and forum buttons are found, how to browse the pages. Of course you do not need to write up a treatise, two/three frames are sufficient for illustrating proper navigation.

MAKING AN E-LEARNING COURSE



Certain platforms acknowledge the user connecting (at times he/she is called by name!) and reminds him which unit is still left and bring him directly to the last page. Obviously, if this is your case the user will have less difficulty in understanding where he has arrived and what is the path to follow to proceed. Otherwise, invite the user to write in the notes section – or send himself a mail if this is not provided –in regards to the section and unit left incomplete.

TEAMWORK

There are certain aspects that you cannot deal with by yourself, you need therefore to collaborate with a workteam, which in certain cases can be provided by the person who holds the platform, otherwise we suggest in finding these figures.

- **a WEB graphic:** a person who takes care of creating images for the net. You will be the one giving precise indications on the content of the pictures, he will be the one using the experience and creativity to realise appealing images. The web graphic takes care also of defining the template (the structure of the page) for the course. You will decide with him which colours to use, where to put the buttons, the navigation bar, the inquiry sections, what needs to appear on the first pagebut not only, you will tell him how to set up the course, what structure you've chosen, also if you want the map of the course visualised so the student knows where he is.

The web graphic is a creative person and knows the Internet network very well since it is his work field; he is also a technician that knows software very well for creating and manipulating images, the optimisation methods of graphic and publishing technologies. At a deeper level the web graphic could be also utilised for acquiring audio/video content.

If you need to find a person yourself make sure that he/she has the skills for graphic environments and phototouch (Photoshop, Fireworks, Freehand), as well as visual communication notions, and naturally knowledge of HTML.

- **A Web programmer** takes care of implementing software solutions that are needed for managing databases or applications for e-learning (for example, mailing lists, forums), he is the one reporting the content of your course onto the storyboard so that they can be visible on the net, it is his job to manage all the complex applications residing on the server, such as video/audio streaming and the managing of log files or statistics.

The web programmer works closely with the graphic person since he receives instructions from him/her regarding the course architecture.

If you need to find one yourself make sure he/she has a good knowledge of both the TCP/IP protocols as well as the deep architecture of operating systems (Windows NT/2000 or Linux); a good knowledge of more widespread server-side programming languages, (ASP, PHP, Java) as well as HTML.

ORGANISING INFORMATION

The user taking the course, if no barriers have been devised (you cannot access unit X if you haven't done unit Y yet), can follow the course:

- With order (following the sequential order of the subjects as recommended by the person writing the course)
- skipping (reading the index and deepening the subjects considered more interesting)
- by theme (the user performs a research regarding a specific theme and reads everything found on it)

If you consider one of the methods above unsuitable and does not bring the student to reaching the final objective, find out from the person who manages the platform what is envisaged in "series" and concern yourself with deactivating a service if you believe it to be counterproductive.

Organising information underlies the possibility of making and specifying the use of words, of an acronym, a complex name.

Even if during a didactic unit you provide the explanation of a term, the risk still lies in the fact that the user does not memorise the meaning and on the next connection may not remember where that word is used. The presence of an on line glossary is certainly useful for a correct and easy fruition of the training plan. If we believe it to be useful we can add explanations to the words even in the unit where the subject matter is treated or refer with a link.

In addition to the words that the teacher inserts into the glossary, you can utilise a programme, for example the "parser" (parcellizer), that reads the document, eliminates common words, weighs the frequency with which a term is repeated and gives a decreasing order of results. The reading of this document can induce the teacher to further enrich the glossary with the adding of new words.

TESTING AND PUBLISHING

Once the plan is drafted, the graphic part ready, the inquires, glossary, verifications developed And, with everything already discussed in the previous pages, we can say we have ended the designing phase. At this point the project is inserted as a whole into the Learning Management System (the sw platform that is utilised for managing the courses) for the delivery, following the structure designed. Before however publishing the training plan we proceed to the "testing", that is the

phase where the project team simulates the delivery of the course by testing the various connections, links and verifications, chat and forum, audio and video animations, making and changes and improvements to services that require to be perfected.

MONITORING

Every Learning Management System (sw platform that is utilised for course management) allows performing monitoring on the progress of the student and class through a series of reports, linked together with different levels of detail.

The reports can be performed on the class, dividing the students into categories (for various reasons, such as age, knowledge of subject matter, or even based on the course they are following or even by the person that has already read the course and who is still half-way ...) or by user (detailed information is provided on the specific detail from their personal file, to the number of minutes needed to read a page). Obviously, the reports can intersect, for example User/subject (how many times with what results a user has carried out a specific subject matter).

All these data are synthesised (through certain queries, dealing here basically with an enormous database) in graphic and diagrams that can be provided by the system administrator to the teacher – for studying the progress of one’s own students on the students – and to the training leader – as statistical analysis tool on the effectiveness/efficiency ratio as – to use with the customer of the FAD project.

In order to provide more precise indications on how the reports works, we can provide you with an example of how Fad System of Infogroup platform develops and organises the reports on which the course you are presently following has been implemented:

CLASS REPORT?

Each is formed by more courses.

For example the “TES” class is made up by the following courses:

- training of e-learning trainers
- telework

By selecting the virtual classes the system shows us a table of three possible choices:

- Students who have completed all the courses of this class
- Students who have at least started one course of this class
- Students who have to still start

Alongside the name of each student the indication (expressed in minutes) appears of the time spent by the user to participate in the courses of this class.

Obviously, the list of courses that are part of this class or the training track are always visible for further research.

CLASS\COURSE REPORT

If, from the CLASS report we select with a click the name of the COURSE (for example, the trainer course training), the system presents a new table that allows carrying out a choice among the following categories:

- Students that have completed the trainer’s training course
- Students that have started the trainer’s training course
- Students that have not started the trainer’s training course yet

Alongside the name of each course started the indication appears (expressed in minutes) of the time spent by the user on that course.

USER\CLASS REPORT

If, from the CLASS report the name of a USER that has at least started one of the courses is selected, the system shows a table with the following categories:

- Courses completed
- Courses started
- Courses to start

Alongside the name of each course started the indication (expressed in minutes) appears of the time spent by the user on that course.

USER\CLASS\COURSE REPORT

If, from the USER\CLASS report we select with a click the name of a COURSE, or if the CLASS/COURSE report the name of the USER is selected by a click, the system shows a table with the list of all course subjects.

For each subject, the following are indicated:

- STATE (N = not started, I = incomplete, C = complete)
 - The following states are envisaged for questionnaires and exercises.
P=pass, I=improvable, F=failed
- RUN START date
- LAST SESSION date of study on that subject
- SCORE earned (only for questionnaires and exercises)
- Overall RUNNING time

USER\CLASS\COURSE\SUBJECT REPORT

If, from the USER\CLASS\COURSE report we select with a click the name of the SUBJECT, the system shows a table that lists all the work sessions of the users on that particular subject.

For each session, the following are given in detail:

- Progressive number
- STATE (I = incomplete, C = complete) (*)
 - For questionnaires and exercises other three states are envisaged:
P=pass, I=improvable, F=failed
- Run START date
- Run END date
- SCORE earned (only for questionnaires and exercises)

* This is the level of greater detail that can be obtained from our system.

COSTS

Designing an on line course requires quite a considerable effort. Time employed varies according to the type of subject matter to teach, type of user base, and by the number of participants to whom they are addressed.

Let's try in any case to give some general indications. Fixed costs are all set in the start up phase which turns out to be the more costly one; they are referred to:

- Research and choice of subjects;
- Design and processing of content;
- Structuring of the training plan;
- Choice of hypertext links.

- PROJECT DESIGN

COSTS

COSTS		
FIXED	VARIABLE	TECHNOLOGY
Planning and Contents Development	Central Administration	Hardware-Software

Fixed costs: content design and development.

We can surmise that if for preparing an hour of lesson in a traditional classroom the teacher takes up three or four hours of time, for an hour of network course approx. 30/50 hours of design are required. The work result has a considerable value in terms of effectiveness and efficiency (that can be also assessed). The project can be also calibrated, changed and personalised later more easily than with a classroom course.

“Almost fixed” costs: central administration.

With this name we like to indicate costs relative to managing the virtual classrooms. The amounts are variable because they are diversified based on the number of students and the percentage of their increase. To follow a class of 50/60 students entails a different commitment from one made up by 1000/2000 units.

“Technological” costs relative to sw and hw equipment

All the expenses relative to the managing and/or leasing of the platform fall into this category, to the activation of certain tools for synchronous communication such as video conferencing or asynchronous such as film clips; the graphical definition of the plan and the choice of images.

Obviously, it becomes necessary to reflect even on the type of choice to perform and the consequent absorbing of the investment.

The design costs are reduced to the subsequent editions of the course. If the subject matter of the course does not become outdated as the months go by (consider general culture courses, history, mathematics, ...) it can be referred during the years quickly absorbing the initial effort. Modern day technology allows realising didactic units that not only can be used by the student with the same speed of a classroom lesson but that can adapt to the tastes and ways each learner studies.

If then we favor a solution that points towards human resources –such as the presence of one or more tutors and of the teacher– and less on technologies (exclusion of videoconferencing, film clips, audio messages, etc.) the initial cost will be certainly lower but it will not allow a great economy of scale in the following editions basing strongly on resources.

If, lastly, we favor a strongly technological solution with the platform that acknowledges the user, and does not call for the presence of the teacher (and perhaps not even of the tutor) thanks to strongly structured material and organised in selfteaching modality, considerable absorption of costs are certainly obtained. What is lost however is the chance to integrate by the group that follows the course and consequent capacity to create a community.

CERTIFIED COURSES

e-learning courses today make their entrance on large distribution and the need by the user to request a certificate attesting his work is emerging rapidly. The actual hardship lies in verifying the connection student/acquisition of content. The firm that “certifies” must become a guarantor and ensure that the person that has browsed the pages of the course, is the same person that has answered the questions of the exit tests (on line) and is not different from who will have the certificate written out to the course followed. The most commonly adopted solution is that of verifying in **PRESENCE** the knowledge acquired on the network. A complex test is given to the course students with precise reference to the didactic units studied and the articles indicated in the library section. The commission controls that the exam is carried out without any scheming and the identity of the person who shows up.

Today, training firms “certify” themselves on a specific brand (Windows, Macromedia, IBM, Caldera...) so that the course that they propose follows the delivery standards and verification dictated by the brand and acquires value recognised externally. The teachers are defined “certified” because they in turn follow a course that has illustrated the delivery methodology in addition to that product.

A NECESSARY “INGREDIENT”

We have already talked about the figure of the tutor. We would like to deliver the issue under a different light.

If the classroom students you address the training to are novices to the e-learning experience we highly advise you to request the figure of a tutor (that may even coincide with you) that helps the students to familiarise with the new training tool and follows them for the entire duration of the plan.

If you cannot follow the classroom we can give you indications to research and/or train a figure that performs to the best this job.

The e-learning tutor must follow, animate, help the virtual classroom. His presence is advisable even in during the design phase of the intervention. The tutor decides –seen the content and the skills of the recipients – the type of interaction that he/she wants to establish with the students: if communication needs to be synchronous or asynchronous, if it is better to insert chat or videoconferencing rather than forum, or the simple exchanging of e-mail.

All this implies that the tutor has a good knowledge of:

- type and specific characteristics of the various technological tools and communication for e-learning;
- an estimate of the necessary times to follow a classroom according to the choice performed;
- an estimate of the prices to define and/or perform the training plan budget.

In order to define the structure to give to the course the teacher and the tutor need to obtain detailed information on the future learners: on the level of knowledge of the subject matter, their age, their technical knowledge, the experience or less of e-learning course and what other judged significant by the authors.

All this will allow the tutor to “understand” a priori the type of class to follow and help him/her in the initial phase of the course on the choice of:

- the type of register to use (if more friendly or formal);
- the need or not to suggest introductory readings to fill the gap of some of the learners on the subject under hand;
- the type of animation to perform.

A good tutor must be a good communicator, he must, that is, have a good preparation in terms of pragmatism in communicating and psychology, he must interpret, from what he reads, the personal characteristics of the user to become actually a reference point.

Thus a tutor must:

- have a good dialectics and good lexical know-how;
- always use a friendly approach in relating to others;
- have good summary and analytical skills;
- try not to antagonise the learner in any way (any discrimination of a sexual, race nature...);
- favour the emphatic approach in every interaction.

He/she takes care of managing and organising work groups that the teacher will time in time assign to the virtual classroom; he/she must therefore:

- decide how to organise the groups (which figures to put together and which to keep away);
- follow the developing of exercises;
- set times for work delivery;
- correct the material produced (when it is not envisaged by the teacher’s intervention)

and, as many times repeated, be the classroom animator:

- quickly resolve – if pertinent – the doubts or questions of the virtual classroom;
- solicit participants’ intervention;
- suggest further inquiries and encourage the participants in looking up support material to the classroom to share later with other students;

- provide examples and additional explanations to the questions asked (avoiding to stop at the simple answer);
- remind students time in time where they can find the inquiries (links, classroom library)
- encourage the participants;
- show them the progress obtained;
- reprimand the students that have not completed their assignments;
- evaluate student performance;
- utilise email for talking directly with a student;
- encourage participants to start certain discussions on line;
- control that the discussions established do not lose contact with the course objectives;
- at the end of a discussion or chat draw the sums of the situation emphasising the conclusions reached;
- lay down the on line “communication “ rules.