

Distance Learning Techniques in University Courses

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INTRODUCTION

Distance learning (DL) is not, and must not become, a surrogate for traditional learning with the teacher (Trentin, 1998). For this reason, alongside virtual classroom technologies such as chat and video-audio conferences and methods typical of synchronous DL which requires the simultaneous presence of lecturers, tutors and students online, it is important to implement asynchronous interaction tools for:

- Accessing content;
- Self-testing;
- Distance dialogue between students, tutors and teachers.

Asynchronous DL therefore offers an important innovative possibility for classroom teaching (whether it be real or virtual): automatic link between content and structure.

From this it is easy to deduce that DL is characterized by three types of activity:

1. Transmission of content prepared by the teacher (configured as content expert);
2. Test and self-test of learning through the use of online interactive tools;
3. Dialogue between students, tutors and teachers.

This complex structure which generates articulated processes designed to create environments favourable to teaching but above all to learning, also requires to be considered, and above all defined, in the light of the roles and professional figures involved (Frignani, 2003).

This particular analysis begins by defining two macroareas:

- The teaching methodology area, to which all of the figures called upon to plan and manage the teaching and learning process belong;
- The field of the analogue, digital and online teaching technologies to which all of the figures called upon to plan and manage the technological process sustaining the teaching and learning process belong;

The definition of the professional figures who will be later described and the processes with which they are associated are the fruit of the ten years' experience which CARID (University Centre for Research, Teaching Innovation and Distance Learning) in the University of Ferrara has gained in the design and management of degree courses with integrated and distance teaching techniques.

TEACHING METHODS AREA

The first figure belonging to this field is the *scientific coordinator* who is the course designer from the content point of view. Together with teaching and technology experts the coordinator prepares the course design and flow chart. This figure is also required to have knowledge of the teaching-technological state of the art as regards the specific learning proposal for which the coordinator is responsible: the scientific coordinator's job is to manage the general course project, together with the director of studies and teaching managers, assuming responsibility for the scientific activities of the content experts.

The role of *content expert* tends to be assumed by the teacher of a course taught using distance teaching methods, since aspects such as the actual teaching of the course itself and the direct contact with the students are delegated to teaching tutors or content tutors. As such, the aforementioned teacher is responsible vis-à-vis the

scientific coordinator and the area coordinator for defining the specific cognitive areas of the reference subject. The expert must be able to perform the wide range of activities listed next:

- Prepare teaching materials and a cognitive map of the topics that he/she intends to cover. The teaching materials will be fruit of the collaboration with the content experts, communication technology experts and teaching experts. The materials that are required to prepare shall be tools that, when used in synergy, facilitate learning and may be used as a guide for exploring and understanding the cognitive areas and content transmission tools (Learning Objects).
- Prepare, in close collaboration with performance assessment experts, tests and self-tests deemed suitable both in form and aims.
- Interact with the system tutor in the handling of organisational problems and with the content tutor for the management of tools geared to stimulate dialogue and online learning in students;

In addition to the specific subject-related skills, the expert is also expected to be familiar with the e-learning platform used, both as regards constructive philosophy and teaching logic.

Another important figure with a predominantly methodological slant is the *teaching coordinator* who has the role of guiding the work of the teaching managers of each course held using integrated and distance teaching methods.

His/her main task to constantly monitor the efficiency and efficacy of the course planning by controlling teaching organisation and management processes and ensuring that they comply with the procedures linked to the teaching methodology applied. More specifically, to successfully perform this task, he/she must be able to gather and process the information required to be able to control the quality of the teaching procedures applied.

By exercising this control, the teaching coordinator contributes to managing and guiding the learning processes and elevating them to high quality levels, orienting his/her work towards the attainment of the total satisfaction of all those involved. The teaching coordinator is also required to guarantee the efficiency of the system of communication between all the various subjects involved not only in the teaching

process but also in the technological and administrative processes.

The *teaching manager*, on the other hand, is required to cover different responsibilities and possess different skills. In addition to having organisational skills he/she is expected to develop, among other things, managerial skills linked to integrated and distance multimedia teaching methodology with special emphasis on collaborative and online learning. His/her job involves planning the course syllabus and following it up, step by step, with a view to ensuring that it is taught efficiently and efficaciously. This figure is the main reference point for the tutors.

The main responsibility of the *tutor*, a figure that will be described in the present paper according to the various characteristics required, is to artificially reconstruct the interaction processes with the student so as to eliminate the condition of physical detachment created by the distance teaching method.

The support offered by the tutor has a dual and circular nature: on the one hand, it aims at overcoming cognitive difficulties, and on the other, by combating students' sense of inadequacy in the face of learning tasks, it assumes a degree of emotional involvement which stimulates the student's motivation.

The tutor, therefore, has the responsibility to help the students contacting them by telephone, via fax, by meeting them directly and, first and foremost, via the internet (e-mail and forums) in order to provide information with regard to the activities to be carried out and to assist them in their learning experience. On the basis of the main activity performed, two different specialisations may be distinguished:

- *Content tutor*
- *System tutor*

The *content tutor* is an expert in a subject or subject area who collaborates with the teachers; he/she is responsible for guiding the student along his/her chosen learning path and for facilitating the student's comprehension of the contents of each course. The content tutor is constantly at the disposal of the students; his/role includes acting as guide, and offering advice and study support to facilitate learning and in-depth comprehension of the course contents.

This activity must be carried out, first and foremost, through the creation of asynchronous interactive virtual learning spaces, such as structured forums and cognitive

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