TEACHING PRESENCE AND TIME MANAGEMENT IN THE VIRTUAL CLASSROOM: THE UOC'S MODEL

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ABSTRACT

Abstract: One of the most important conceptual pillars that make up the educational model of the Universitat Oberta de Catalunya (UOC) – as recognized in the organic document that develops it – is the "teaching presence". The notion of teaching presence, along with both cognitive and social presence, are the structural basis of the educational scenario known as e-learning, as assumed by the UOC. These concepts are not merely theoretical constructs. Properly focused, they can provide indicators to develop tools for assessing some aspects of virtual classroom organization and designing educational activities, including those involving the teacher's effective time management. Starting from an analysis of the components of teaching presence – along with some theoretical developments concerning the notion of time in online education– this paper aims to look at the concepts that have implications on the improvement of these activities, so they can be subsequently included in the development of evaluation scales.

KEYWORDS

time factor, teaching presence, e-learning, UOC, time management.

INTRODUCTION: THE UOC AND ITS ASYNCHRONOUS EDUCATIONAL MODEL

The Universitat Oberta de Catalunya (UOC) started in 1995. It emerged as an institution with a clear commitment to educating people in a highly diverse society in terms of "age, activity, incomes, residence and personal situation[1]". The vocation of the UOC is expressed in its mission, which summarizes its orientation towards lifelong learning and proposes a framework to support cutting-edge technology in the teaching process. Its educational and management model, based on personalization and on supporting students through networking and intensive use of Information and Communication Technologies, overcomes the barriers of space and time, using the knowledge generated for the development of the individuals and the improvement of the society (UOC, 2012).

Unlike other universities, the UOC has developed its own educational model. According to Bautista (2011), this model initially focused on the student, but, in the most recent reformulation (UOC, 2009), "the pedagogical approach of this university focuses on student learning activity" (pp. 53-54). Although the change seems minor, says Bautista, this is not so, because the shift to activity implies a capital emphasis on students' responsibility for their own learning. Given this central shift, the educational model of the UOC, under current analytical approaches (Sangrà, 2001; Duart, Solomon & Lara 2006; Mas, Gros & Garcia, 2009; UOC, 2009), is built on four principles:

❯ **Flexibility**. By "flexibility", the UOC means students' ability to organize their own learning process. Educational tools such as the syllabus[2], class schedule, etc., allow students to know from the beginning how the semester will be structured, and plan their work in each of the course subjects.

❯ **Customization**. This means adapting curricula, schedules and activities to the needs of the students and their particular pace of learning. It takes t experience and knowledge into account and tends to recognize the peculiarities and cognitive styles of students, especially lifelong learners.

❯ **Interaction**. The communicative dimension is key to designing the educational processes of the institution. Interaction is multilateral: it integrates students, faculty and learning contents into a single model.

❯ **Cooperation**. In the UOC's educational model, cooperative and collaborative activities are encouraged by the possibilities of the platform, according to a model in which asynchronous training becomes fundamental (Duart, Salomon & Lara, 2006). However, cooperation as a philosophy does not exclude autonomous and independent work. On the contrary, it requires high levels of individual reflection, which is ultimately what allows the students to contribute their experiences to the workgroup.

Taken all together, the above features mean the UOC virtual classroom is the space where interactions occur based on the activities that are the true core of learning. We are dealing with a third-generation e-learning model placing the emphasis on flexibility and participation (Gros, 2011). In it, says Gros, agents undertake new cooperative habits in which a key factor is "planning (individual and group) and time management, taking into account the allocation of roles, task distribution, etc." (p. 28).

From the above identity notes it is easy to understand the importance of the time factor.

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1. Act recognizing the Universitat Oberta de Catalunya, 3/1995 dated 6 April. (1995).
2. "Plan Docente" in the UOC's language.

Flexibility, for instance, requires effectiveness in managing the teachers' tools allowing students achieve structure during the course. The customization involves adaptation to individual learning rhythms. The interaction demands good communication control through asynchronous tools (forums, message boards, e-mail…). And cooperation calls for the ability to self-organize to produce smoother cooperative and effective group dynamics. In short, the concept of online learning as a set of communicative and cooperative processes implies a redefinition of traditional teaching roles. Now, asynchronous communication time becomes essential, forcing us to define strategies to better manage and to evaluate such management.

This article intends to look at some educational concepts that have implications for the improvement of the activities involving time management in e-learning environments, so they can be taken into account in developing evaluation scales. We want to provide indicators to develop tools for assessing some aspects of virtual classroom organization and the design of educational activities, including those involving the teacher's effective time management.

We have divided the article into three main parts in addition to this introduction and the corresponding conclusion. They include the rationale explaining the notion of teaching presence at the core of the UOC's educational model, the theoretical background, in which we relate the two main topics of the article: teaching presence and time management. There is also a final part where we propose the foundations of a framework for analysing the time factor in the educational model of the institution.

RATIONALE: TEACHING PRESENCE AS AN AXIS OF THE UOC'S EDUCATIONAL MODEL

In its teaching model, the UOC (2009) has explicitly acknowledged the influence of Garrison & Anderson's conception of technology-mediated learning (Garrison & Anderson, 2005). Such recognition has been recently confirmed by Begoña Gros: "The community of inquiry framework developed by Garrison & Anderson is an attempt to provide educators with a deeper understanding of the characteristics of e-learning" (Gros, 2011, p. 17). These authors analyse virtual interactions that result in "learning experiences" – in which teachers, students and content come together – in terms of the concept of presence. Three types of presence are distinguished: social presence, cognitive presence and teaching presence. Social presence is concerned with the involvement of teachers and students in a common virtual space (classroom, groups, etc.) and with common objectives. It has an inclusive, empathetic dimension. Cognitive presence is the educational intervention in the processes that relate the students to the learning content. This is a dimension that focuses on training and development of critical thinking and research. Finally, the teaching presence encompasses the processes of design and planning, facilitation of discourse and direct instruction. Garrison & Anderson justify the teaching presence from the analysis of the teacher roles proposed by other researchers (e.g. Berge, Paulsen & Mason[3]).

The effective application of the interpretive framework – represented by these different types of presence – to learning situations occurs through the interaction of educational agents in the virtual platform where learning takes place: the *virtual campus* (De Laat & Lally,

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3. Cited by Garrison & Anderson (2005, p. 97).

2003). Here, the teacher is responsible not only for the vehiculation of information, but for a host of complex processes that have been analysed by Gilly Salmon under the concept of e-moderating (Salmon, 2001, 2003).
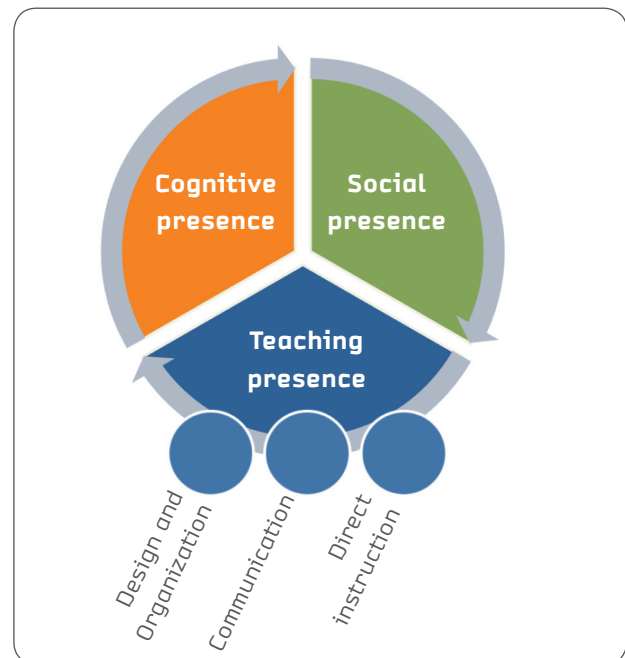
This article only focuses on the concept of teaching presence, and its objective is to provide the theoretical basis for developing an evaluative tool to asses the aspects of teaching that have relevant implications for improving time management in the virtual classroom.

Figure 1 shows the components of the teaching presence, according to Garrison & Anderson. *Design and organization* refers to behaviour patterns, organization and teaching planning in the virtual classroom. *Communication* (or "facilitation of discourse", in the words of the authors) falls into the interactive dimension, with consensus, the discussion of points of views and the establishment of an adequate working environment in the virtual classroom. Finally, *direct instruction* covers the processes traditionally associated with transmission and content delivery, monitoring and evaluation. Table 1 details the teaching actions with which each component is achieved. As can be seen, the components are expressed in the form of a division of time that virtual trainers should

implement in the classroom –if they are to follow the teaching model assumed by the institution.

We must now look at the aspects of time management involved in individual actions making up the components of teaching presence, in order to establish an analytical framework that includes aspects such as an

Figure 1. Types of presence and teaching presence components (Garrison & Anderson, 2005).

Table 1. Teaching presence: virtual classroom division. Adapted from Garrison & Anderson, 2005

Design and organization	Communication (facilitation of discourse)	Direct instruction
• Design methods. • Syllabus. • Calendar. • Effective use of technological resources. • Standards of conduct and courtesy. • General feedback to the classroom (response times).	• Identifying areas of agreement / disagreement. • Trying to reach a consensus. • Encouraging, recognizing and reinforcing student contributions. • Establishing a climate of study. • Promoting discussion (extract views of participants). • Evaluating the effectiveness of the process.	• Submitting content. • Focusing discussion on specific topics. • Summarizing the discussion. • Confirming understanding through explanatory feedback. • Diagnosing misconceptions. • Injecting knowledge from different sources (multisource, multimedia). • Addressing technical problems.

instructor's job evaluation scale. The next section deals with this issue.

THEORETICAL BACKGROUND: TEACHING PRESENCE AND TIME MANAGEMENT

Learning takes time, and deep learning requires more time (Stoll, Fink & Earn, 2003). The time factor is even more crucial, if possible, in online learning, since, here, teaching processes require control of an added variable: *technology*. Furthermore, virtual teaching requires a stable presence of the trainer in the classroom, continuous monitoring of students and special handling for social time (McVay Lynch, 2002).

It is easy to see that the time factor is present in each component of the teacher presence described by Garrison & Anderson. So, in a summary analysis, the *Design and Organization* component involves planning the contents, programs, activities and classroom schedule. The Communication component helps teachers to manage the classroom climate, promoting involvement and student participation. The Direct Instruction component will include activities such as releasing content or regular educational assessment tasks. The issue, then, is to identify, in accordance with existing theoretical proposals, a set of indicators that underlie the temporal components of teaching presence that can be evaluated in research on virtual learning and teaching.

There are many different approaches to the notion of time in education. Some of them refer to the times or "watches" of institutional change and administrative structures of the school (Cuban, 1995; Thrupp & Willmott, 2003). These approaches are beyond the scope of this article. In most cases, however, the problem of time is tackled from an operational perspective, trying to propose formulations that enable

the researcher to understand its role and to assess its control and management. Willis (2007), for example, focuses on the processes of design and communication. Race & Brown (2004) propose practical recommendations on the organizational aspects of student time. Stoll, Fink & Earn (2003), Gros, Barbera & Kirchner (2010) and Bates (2010) cover the three components of teaching presence from different perspectives. The study by Gros, Barbera & Kirchner is particularly interesting because it contains an in-depth analysis of the time factor literature, distributing it in three dimensions, one of which is precisely teaching and learning online. This dimension has a strong correlation with the components of teaching presence. Meanwhile, Perez-Mateo & Guitert (2011) explores the role of time in collaborative learning processes. Table 2 organizes the collection of temporal factor analysis in virtual education, highlighting which components affect the teaching presence.

If we study the third column carefully, it can be seen that the aspects of the teaching presence involving time tend to concentrate in three groups: firstly, those relating to students' learning time (for example, most of the Race & Brown's considerations). Secondly, those that have to do with the uses of technology: tools, platforms and software that can be part of active learning (as in the analysis of Bates). Finally, the set of processes that affect the teaching task itself, including the organization of the curriculum and materials and the production of feedback strategies in the classroom (very much present in the review of Stoll, Fink & Earn).

These clusters of activities involving effective time management are not arbitrary. For instance, the study of 28 specialized papers carried out by Gros, Barbera & Kirschner fits well, in terms of virtual teaching and learning with the "times" mentioned: the time involved in the use of technological tools and the student

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Presence and Time Management in the Virtual Classroom:
The UOC's model. *eLC Research Paper Series, 6, 06-14.*

Table 2. Studies on time management.

Authors	Teaching presence components	Time management implied aspects

Gros, Barberà & Kirschner (2010)	The study affects all three components.	• Technology time.
		• Social and participatory time.
		• Student time.
		  –Progression in content development.
		  –Individual evolution

Stoll, Fink & Earn (2003)	The study covers areas of the three components.	• Planning time. • Time for learning new techniques and development experiences. • Time for observing lessons by peers and trying out new practices. • Time for researching. • Time for working collectively, to create a community.
Willis (2007)	This focuses on the *Design and Organization* component and *Communication* component.	• Guidelines for participation. • Control class size. • Manageable amount of materials. • Scheduling time. Establishing milestones and limits. • Creating habits to organize time. • Identifying priorities. Having realistic plans.
Race and Brown (2004)	The study focuses on the component *Design and Organization*. The recommendations have more to do with tutorial processes than teaching processes.	• Helping students to become better at time management. • Making students aware of the learning pay-off. • Helping students to stop and look back. • Helping students to spare themselves the effects of procrastination. • Getting students to set stage deadlines for themselves. • Helping students feel positive about getting ahead of schedule. • Getting students to do a risk assessment, helping them to identify the consequences of poor time management. • Convincing students that minutes can count for more than hours.

Pérez-Mateo & Guitert (2011)	The study focuses on collaborative learning processes in virtual environments.	• Time to learn the tools.
		• Time to organize work and learning processes.
		• Time to optimize the networking process.
		  –Interaction between members.
		  –Organization and process management.
		  –Knowledge construction.

Bates (2010)	The study affects all three components, from the viewpoint of the student.	• Time of the learner. • Time of the learning activity. • Time affordances of different media and technologies.

time are so clear. Moreover, one of the main ways teacher time shows up is in the evolution of the learning rates of students in the virtual classroom.

A FRAMEWORK FOR ANALYSIS OF THE TIME FACTOR IN THE UOC'S EDUCATIONAL MODEL

We now have sufficient theoretical elements to set up a matrix that enables researchers to correlate the approaches we have explained

to temporary variables in e-learning to the components of teaching presence, as considered in the educational model of the UOC.

This was done in Table 3. The table develops a synthesis between the components of teaching presence and categories drawn from the theoretical review considered in this article. The teaching at the UOC is aimed at fostering interaction and creating active participation and collaborative dynamics, all about learning activities that make preferential use of technological tools. So, an analytical model

Table 3. Matrix of analysis for building evaluation scales that include the time factor in e-learning.

Design and organization		Teaching presence		
		Design and organization	*Communication*	*Direct instruction*
Time dimensions	**Student time**	• Awareness of the value of time in work organization. • Counteracting procrastination. • Setting partial and achievable goals. • Importance of the agenda and timetable. • Learning techniques and scientific data on optimizing study time.	• Development of collaborative habits. • Rules and *netiquette* communication in relationships in the virtual classroom. • Contribution to a climate of respect and dialogue in the classroom that supports working fluid dynamics. • Awareness of cultural time differences.	• Awareness of the importance of fulfilling the deadlines of the activities. • Forecasting volumes of information. • Right choice of technological tools to explain the educational content.
	Teacher time	• Time invested in organizing and designing of the virtual classroom. • Time spent in designing the syllabus and learning activities. • Time spent on managing the virtual classroom space.	• Time spent energizing and monitoring activities. • Time devoted to organizing workgroups in collaborative activities. • Time taken to create a working environment and promote discussion and self-criticism.	• Time spent in evaluating activities and tasks. • Time spent on assessment and feedback. • Time taken to promote independent student research.
	Technology time	• Decisions about what tools will be used in the teaching process. • Realistic design of time and skills required for an effective use of the tools.	• Time taken to generate dynamic communication with the tools available in the virtual campus. • Using social networking platforms to extend learning outside the virtual environment.	• Time spent on solving technical problems. • Time devoted to content integration from external platforms and web services.

seeking to establish indicators that can be used later in a broader teacher/student role appraisal should consider the temporal aspects that are located at each position in the array. As seen in the table, for each component of teaching presence we have identified specific guidelines regarding the time of the student, the teacher and the technology.

The development of an instrument for assessing the effectiveness of the teaching-learning process should look for indicators that materialize the concepts presented in the matrix. For both quantitative and qualitative research, the time factor assessment of online teaching must consider at least some of the highlighted aspects, as they are embedded in the teaching nucleus of the institution examined.

CONCLUSIONS

Throughout this article we have shown the relationship between the teaching core of a virtual university, the UOC, and the aspects of effective time management in online education derived from theoretical approaches, some of which include a set of comprehensive studies of the literature. The UOC's identity notes show a significant dependence on processes involving communication time management in asynchronous environments.

The UOC exposes the this teaching core in its educational model. It gives a privileged position to the concept of teaching presence. This paper has detailed the temporary implications of this notion by examining its components in the light of a consistent theoretical review.

As a result of this process, it has been determined that there are three dimensions of time that bind most of the factors outlined by the authors we considered: firstly, the teaching dimension, materialized in teacher time. Second, the student's time, with its scheduling, learning strategies and self-paced ways of working. Finally, a key factor in technology-mediated learning is the productive control and use of the tools and platforms: the so-called technology time.

Alongside this exchange of data, we have designed a matrix or double-entry framework that is intended as a guide for evaluating the temporal aspects involved in virtual education. It is also proposed that in the reference institution, the UOC, an evaluation instrument intended to consider the time factor in e-learning will take into account some, or all, of the indicators in the matrix. The choice of which factors should be converted in indicators depends on the design, methodology and objectives of each particular investigation.

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