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SOME APPROACHES TO THE EFFECTS OF TIME ON COLLABORATIVE ONLINE LEARNING

THIS ARTICLE OFFERS THE VOICES OF DIFFERENT EXPERTS[1] IN COLLABORATIVE LEARNING AND THE TIME FACTOR IN VIRTUAL ENVIRONMENTS

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FAVOURITE STATEMENTS ABOUT THE EFFECTS OF TIME ON ONLINE LEARNING

COLLABORATION

One student's time flexibility is another's time delay.

E-LEARNING BELLS

In traditional education and training, the allocation of resources is controlled by the "ringing of the bell".

VIRTUAL TEACHERS AND PARENTHOOD

You are going to work harder when you teach an online course, at least the first time around. Being a "virtual" teacher is a little bit like parenthood. You are "on duty" all the time and there seems to be no end to the demands on your time and energy.

ONLINE TEACHER WORKLOAD

With correspondence courses, teachers were used to courier visits, delivering post once a day. Online teachers, however, can receive e-mail 24 hours a day, 365 days a year. This online immediacy results in the demand among students for swifter responses, and hence, a heavier workload for teachers.

STUDENT DREAMS AND TEACHER NIGHTMARES

Online education offers students excellent opportunities for one-on-one communication with their tutors, who can be contacted via e-mail 24 hours a day, 365 days a year. Few learning environments provide such opportunities for individual access to teachers. Obviously, online students appreciate always having a personal tutor on hand. It is a student's dream, but it could soon become a nightmare for tutors.

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THE EFFICIENTIST UNDERSTANDING OF COLLABORATION

Collaboration is the cornerstone of the social process generating situations of human progress that help to complete individual development. When we collaborate, we are building the social present and future, and if everybody participates in this practice, the process takes place in a democratic dynamic of citizenship. Collaboration is an organizational process of personal responsibilities, in which certain people have a social role, time, activities and resources. Moreover, this coordination process has an ethical component of respect for members of the social group to which we belong.

When we consider collaboration as the cornerstone of activity at work or in training (education), we refer to an activity that has its own advantages and disadvantages. The strengths relate to the characteristics of the process itself:

- When we consider that the collaborative process entails the development of a positive interdependence process, we are referring to its quality of facilitating an empathetic connection between people who participate in a collaborative relationship.

- When we reach the conclusion that interaction processes are essential, we mean that collaboration is an efficient process of intercommunication. When we understand that every group member has to make an individual contribution, we are talking about creating rules requiring him or her to accept co-responsibility.

Lastly, when we talk about the necessary development of group and personal skills, we are referring to the development of relationship procedures, what has the particularity of singularity. In this sense, every group develops its own characteristics and dynamics.

All these aspects redound in a series of benefits for the social and psychological development of individuals. Interaction, relations and communication processes are relevant issues for human psychological development. They are the basis of the human

language and our knowledge of the environment in which we develop. Moreover, they are essential for social development because they foster the skills for building democratic communities of social progress, respectful of their citizens.

Nevertheless, we have a problem to solve: the need to invest time, the workload generated by our having to learn how to carry out collaboration processes in synergic ways. Every collaborative dynamic entails spending time on its organization. Hence, it has a processual dynamic, as training processes have. The application of an absolute or efficientist conception generates despondency and devaluates the collaboration

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INTERACTION TIME. YES, IT MATTERS!

It is a common argument that one of the advantages of the use of new technologies in education is the elimination of barriers of time and space. However, in our research on asynchronous time and cooperation, it is clear that time is neither cancelled out nor does it disappear with interaction. Time, rather than disappearing with this technology, shapes a new approach of discontinuous interaction and, with this, new rates of cooperation. All this leads to new options, needs and educational challenges.

Just as cyberspace does not cancel out physical space, creating instead a new environment for interaction, asynchrony creates a new order of steps among students who send and receive messages without sharing a common place. This involves creating a new timetable of interaction that is very different to face-to-face interaction. Asynchrony in e-learning helps create a new, different time culture to be learnt. Consequently, the asynchronous time in education shapes new flows of cooperative interaction, in conjunction with the 'no-place'.

From this perspective, asynchronous communication systems in e-learning, besides allowing flexible cooperative interaction with 'other people' who are physically remote, gives students temporary control over their own interaction and that of other people. [...] In this respect, the maneuverability of asynchronous communication, far from being seen as a neutral technological feature, should be perceived as the start of a new model of temporary representation for cooperative learning on the Internet. Teaching, therefore, will have to accept that the time of the interaction is part of the representation of learning and teaching in virtual training.

References

Suárez, C. (2008). *Educación y virtualidad. Bases para el aprendizaje cooperativo en Red* (pp. 379-380). Lima: Editorial Universidad Ricardo Palma.

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THE TIME FACTOR IN VIRTUAL COLLABORATIVE LEARNING

When designing online collaborative activities, one concern for teachers is the quantification of the number of hours that students will use their learning in each subject or unit of content, knowing that each will have a series of content or knowledge units and a series of extra modules: participation in discussion forums, self-assessment activities, tasks to be delivered to teachers, among others.

Therefore, teachers should not plan the different training activities for their students at random, but rather, they must think and balance out the time to be spent on each section of each unit of content: 50% of the time spent reading/hearing/watching/interacting with content, 10% of the time spent participating in the forums created in the training environment for this purpose, etc.

Special attention should be given to online collaborative activities, as these must not only take into account the estimated time for a student to perform a task but when done collaboratively should be borne in mind that times may be affected resolve upward. That is, when a student owns his own time, it can be better organized while not dependent on anyone, but if you must collaborate with other/s fellow must be found that not everyone will be able to dedicate the same time and at the same time because the level of availability will be different.

Therefore, we must bear in mind that students need not only a time to prepare their proposals, but also need a time that we can call "information management" will present their peers. To put it in a more simplified, suppose that three students should make an online collaborative activity and each spends about fifteen minutes to make its initial proposals, once you articulate the processes and technological methodologies to share that information (via a wiki or Google docs, for example), then each student will need another five or ten minutes to process each of the interventions that their classmates have done.

This leads to the conclusion that if we multiply the tasks that a teacher can assign to each unit by the number of issues that have the program to teach in any subject and the result is multiplied by the number of subjects having the student during this academic year, could leave an hour maybe a little crazy amount for this type of approach are evident

as more advantageous over other more traditional.

We conclude that the design of online collaborative activities by teachers must follow a protocol of best practice and especially in context to the reality of students enrolled in these studies. We cannot ask students to make a wiki on a given content do not yet know when or how it creates and generates an online wiki, let alone know which providers are currently giving this service free of charge, for instance.

This mismatch on good practices related to the design of online collaborative tasks will cause the student to invest more hours than originally planned by teachers and consequently end up stressed; generating false expectations on what was a collaborative teaching online.

Already in 1987 the American Association for Higher Education (Chickering & Gamson, 1987, in Cabero & Roman, 1996) established seven principles to consider in a university teaching quality, and we can help, among which we highlight the fifth:

1) Good practice encourages contact between students and teachers.

2) Good practice develops reciprocity and cooperation among students.

3) Good practice uses active learning techniques.

4) Good practice gives rise to feedback.

5) Good practice emphasizes time on task (good use of time by the student is a basic for learning. Assign realistic time periods is a key to learning).

6) Good practice creates high expectations.

7) Good practice respects diverse talents and ways of learning.

References

Chickering, A.W. & Gamson, Z.F. (1987). "Seven principles for good practice in undergraduate education". *American Association of Higher Education Bulletin.* 39 (7): 3-7. Retrieved February 8, 2011, from (http://www.aahea.org/bulletins/articles/sevenprinciples1987.htm)

Cabero, J. & Román, P. (2006). "Internet training: critical variables". In Cabero, J. & Román, P. *E-activities: a blueprint for Internet training.* (pp. 11-22). Seville: Eduforma-MAD.

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E-LEARNING, COLLABORATION BETWEEN STUDENTS AND THE CRISIS IN THE ORGANIZATIONAL MODEL OF ACADEMIC TIME IN TRADITIONAL IN-PERSON UNIVERSITIES

One of the main characteristics of e-learning, whether it is in LMS, Web 2.0, social networking, e-portfolio and so on, is that communication and social interaction between teaching staff and students is not subject to the inflexibility of the physical encounter that occurs at a certain time and place. E-learning enables a flexible with regard to students' communicative interaction among themselves and with the teaching staff. This involves overcoming the limitations of time and space. Thus, virtual environments enable communication processes on a 24-7 basis, either in real time or with delayed reaction.

The interesting thing is that these digital areas, whether they are of the formal, Moodle-type LMS or in informal environments such as social networks (Facebook, Twitter, Ning, Elgg, and so on) can lead to social interactions that enable work to get done in collaboration in a project that is common to the students, under the supervision of the tutor. Thus, "academic time" disappears as a kind of time that is limited and separate from everyday life, confined to an academic timetable. This time vanishes because students can work together from anywhere and at any time, exchange information, comment on a contribution from another partner, express an opinion, send and share resources, etc. As a result, ICT (computer, mobile phone, I-pads, etc.) increase the chance for collaborative work, with time disappearing as a limiting variable because communication can be synchronous or asynchronous.

One consequence or effect of all of this is that e-learning to a greater or lesser extent is beginning to question the organizational model of academic university timetables that has been used for several centuries. Therefore, the introduction of e-learning in traditional universities is creating conflicting and contradictory situations fraught with tension as regards variable academic time, because the old organizational models persist with strength, despite the fact that new trends and needs are emerging in terms of virtual education organization.

Let us look at this contradiction. On the one hand, administration of the so-called in-person universities promotes the creation and use of the virtual campus, encourages innovative educational projects based on ICT, provides on-line training for their undergraduate and graduate degrees, offers workshops, conferences and seminars on e-learning. On the other, university faculties and schools mostly maintain the traditional nineteenth century timetable for their face-to-face classes. In many Spanish universities, teaching staff and students still have to put in their "in-person time" (i.e., attend and be present in the physical classroom in the timetable assigned to their subject and in the office for their tutorial timetables).

Furthermore, these lecturers are also told to create virtual areas for their students (usually in e-learning platforms of the MOODLE or similar types), create digital-study content and materials (in PDF format, multimedia presentations, animations, concept maps, or video clips), propose on-line activities to be done by their students, create individualized and small group tutorial procedures, carry out continual assessment, and so on.

In conclusion, ICTs enable communicative interaction and, consequently, collaborative work among students any time and anywhere. The problem is that, at present, the introduction of e-learning in the on-campus university context is put forward in many institutions as a mere addition or appendage to traditional practice of organizing the academic timetable, without altering it or making any substantial innovation to it. This is causing a significant proportion of Spanish university lecturers and students to perceive e-learning as a burden and an increase in working hours rather than a new pedagogical approach or perspective for the development of teaching and learning in line with the digital culture era. In my opinion, this situation cannot be upheld much longer, which means that in the medium term, a deep crisis will arise in the organizational model of time and space in traditional universities as known up to now.

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TIME MATTERS IN VIRTUAL COLLABORATIVE LEARNING

Time affects the experience of learning through collaboration in a variety of ways, depending on the point of view from which we consider this experience and on the meaning we attach to the concepts of time and collaboration. Moreover, the evolution of technology and the role it can play as a mediator in these processes is transforming our approach to collaborative learning.

Traditional teaching approaches follow the law of uniformity in three aspects: the same time, place and activity for everyone. Collaborative learning mediated by technology changes these coordinates, blurring the boundaries imposed by the law of uniformity and driving the creation of more flexible learning situations. In these situations, each group of students can have its own rules, decide what action to take and browse at its own pace, marking out its path through the content, albeit within a common time frame. Thus, students have the opportunity to contribute to group work from their different perspectives and interests, expressing their different learning styles and times more freely. This is time as diversity.

However, the design of collaborative learning environments in formal settings requires more than simply putting students to work together in groups and providing them with

tools for collaboration. Numerous investigations have focused on dissecting the necessary conditions to encourage collaboration and construct joint knowledge within virtual environments: the constitution of the group, the proposed learning activity, the type of teaching support, the technological affordances provided by the environment, etc. Time cuts through all of these variables in a relevant way. Experiencing interdependence, negotiation, symmetry of action, joint organization and the construction of meaning, among others, depends largely on having enough time and training. Therefore, the design and planning of such situations should treat time as something delicate and necessary, as a component that must be controlled and adjusted throughout the process. This kind of treatment can also lead to variations in content coverage, efficiency levels and the number of activities. This is time as a condition and as an investment.

Social media currently offer a new dimension of collaboration, which confers a different value to time. The Internet is a hotbed of potential collaborators, known or anonymous, who contribute to the joint creation of content, the development of activities, knowledge exchange or the resolution of problems. This type of collaboration is generally developed in informal learning contexts, a field that seems oblivious to organized time and increasingly so to physical space, thanks to ubiquitous connectivity via mobile devices. This is an elastic sort of time where learning takes the form of a conversation without the limits of dialogue that can alternate between moments of synchrony and asynchrony, slowness and dynamism. It is a time molded by all those involved in the process of social knowledge building. This is the time of spontaneity; fluid and unpredictable.

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THE TIME FACTOR IN COLLABORATIVE E-LEARNING ACTIVITIES

The time factor is extremely important when it comes to e-learning, because, among other things, it requires planning the time students and teaching staff spend down to the finest detail.

As for students, they must plan the time to be spent on each of the activities and tasks that make up their entire commitment to the course. As regards teachers, they must take time to review the materials created by students and return feedback, in addition to monitoring the real time dedicated by each of their students to the scheduled situations.

Teaching staff must plan the time they will dedicate to their students, remembering that this is not the same when estimating time for reading as for an information search activity, for solving an exercise or doing a project. In the case of reading material, this should be chosen with great care, adjusting this to the level of studies so that an average student can do it in an estimated time. This time also depends on the complexity of the reading content, thereby making it imperative to find clear reading material. If this is an exercise, the time the average student would need to solve it should also be planned and it should be aimed at an appropriate level of knowledge, as happens with any work given.

However, the teacher must also plan the time needed to choose good reading material, give good information sources, prepare materials and generally ensure they are at the level of the studies and can be resolved in the time estimated as sufficient on average. The teaching staff is also responsible for finding time in their weekly schedule to review their students' deliverables and they must limit the tasks based on this timetable. This work must be evaluated and fed back to each student, so that the teaching staff only set tasks that can be reviewed within a reasonable period of time, no more than 2 weeks, since feedback becomes meaningless after this period and the student does not take the utmost advantage of the review.

Time planning is in any case established by the teaching staff, whether this is the time students or they must spend. To know the estimates' level of accuracy, it is important that the lecturer monitors not only their own estimates but also those of the students, who must report to them the actual time spent on activities that lead to deliverables and those that do not (for example, readings, self-evaluations and co-evaluations). With this information, they can adjust the theoretical time to the real time taken, so that the burden of work per week or month does not exceed a reasonable amount and is as consistent as possible and distributed throughout the entire semester.

It should be noted that experiences carried out over a period of twelve academic years monitoring the time students dedicate, show some relationship between the times of each individual student and the results of their learning (seen in the form of grades obtained via different kinds of evaluation). However, this does not happen in all cases since we also observed that a small proportion of students get good results dedicating a short time while others get average results dedicating a great deal of time. From our experience, we can conclude that time commitment is not an indicator of the results of learning that enables the result the student will obtain to be estimated during the academic year with reasonable probability. Nevertheless, it is a feature that helps individualized tutoring while allowing one to adjust the estimated time commitments from year to year.

The importance of checking and monitoring both the lecturer's and the student's time enables one to have a relatively stable set of materials, activities, exercises, projects and so on in successive academic years (not more than three). Following a strict schedule with flexible management, can stabilize an online degree subject or the part of a subject that is online in the sense that the average student can follow it effectively and successfully.

One example of this is determining the real commitment of students to different activities that they charge on-line so individual study, deliverables, solve problems, exercises, or seek information, from others, it begins of an estimated time shown at student and the student must return to the teacher the real time spent. This need stems from the idea that the student must devote to the subject a time, in our case, 80 hours, but no more (nor less).

So, if we control those individual times weekly is possible to adjust continuously student's dedication. That is, if a week, on average,

spends less time than expected, for the next week increases the order in time proportional to the defect. And vice versa. Through this strategy we have been able to adjust to 5% above or below the total time of dedication to the course.

As to whether the students tell us the truth of his dedication, we believe that if since it is practically impossible for us to lie together the 400 students taking the course each year and because we work with the average time. It is also true that students do not devote the same time and we operate with averages.

It is clear that the real control of the time commitment will always have a problem when working with reliable data but we use it seems a good approximation.

The way we collect data is by sending Excel files and transport them to a single sheet on which the calculations do weekly. The time that the teacher leads this activity may involve the order of two students per minute.

Then will come the time to calculate averages and make decisions. Thus, we fit a curve which meets weekly reality they have to spend time students.

Footnotes

[1] . All of the spanish experts are members of the "Red Temática Sobre Aprendizaje Colaborativo en Entornos Virtuales" REF: EDU2010-09535-E.