

HOW DIFFERENT STUDENTS PERCEIVE E-LEARNING? THE CASE OF ANTIQUIT@S, AN ANCIENT HISTORY COURSE

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ABSTRACT *This paper presents results about the perception students have of a blended learning course in ancient history (Swiss Virtual Campus program). The two successive sessions of the course Antiquit@s, given in Fribourg in 2002-2003 and 2003-2004, are compared in order to evaluate how the different compositions of the two groups of students influenced their perception of an e-Learning pedagogical situation. The adaptation to a blended learning environment should not represent a significant obstacle even for less experienced students. But this group is not convinced that such a situation is offering them efficient learning conditions. The reason for this kind of negative feeling appears as being more linked to active learning process than to the use of ICT.*

PURPOSE OF THE STUDY

We present in this article a part of the pedagogical study of the project Antiquit@s. This Swiss Virtual Campus (SVC) project aims at building up interactive web-based materials and resources that higher education teachers can use to build up e-Learning courses in ancient history for first and second year university students. The development of this courseware was pursued over the period 2001-2003 by a collaboration of four Swiss University institutes from Fribourg, Lausanne, Bern and Zürich.

The present paper analyses the students' perception of the e-Learning course that was built up with the resources of the Antiquit@s project and proposed at the students of the University of Fribourg during the winter semester of 2002-2003 and during the winter semester of 2003-2004. Information is gathered to estimate this perception globally and also to understand how students use the different elements of this pedagogical situation (interactive on-line facilities and face to face moments).

We try then to understand, with the teacher, the reasons of the observed behaviour; in other words, to analyse what are the factors influencing the students' perception. In particular we noted important differences between the two students' groups (see Table 2). This determined our decision to focus the present article on the relation of the students' profiles with the observed perceptions.

METHODOLOGY

A continuous formative evaluation to improve the pedagogical situation

This pedagogical study is part of a continuous formative evaluation process, pursued by the NTE Centre of the University of Fribourg, applied to improve e-Learning courses under development (Platteaux, in press). This process is based on a continuous data gathering that completes results coming from the literature (McDougall 2001) and thus allows a real understanding of a local pedagogical context such as the Antiquit@s ancient history course. This is achieved in particular by considering the students' point of view (Williams 2002).

Data gathering tools

A questionnaire and discussions, with the students and the teacher, are used to gather both quantitative and qualitative data. Based on previous research (Zahnd & al. 1998), the questionnaire evolved a lot towards its present version to enhance factors and basic elements of e-Learning courses: learning objectives (identification and achievement), contents and their extension, content presentation and instructional style, used resources (interactive facilities and more traditional ones), communication aspects, activities made by students, organisation of work and resources (Thompson 1987; Ragan 1999). We also consider acceptance, utility and usability as the three main parameters allowing an evaluation of the students' perception of a learning environment (Tricot 2003).

We want to estimate how these factors were perceived by students in order to find what element made the learning process efficient or not, easy or difficult. We want also to understand what resources are used and why. The questionnaire was distributed to the students during the last face to face moment of the course. During winter semester 2002-2003 (respectively 2003-2004), 25 students attended the course and 12 questionnaires were returned (respectively 80 and 45).

Pedagogical and organisational principles of the course

In 2002-2003, the course offered to study the history of childhood in ancient Rome. It was composed of three parts, each centred on a methodological aspect important to acquire for a future historian: the use of anthropological concepts, the use of an interdisciplinary approach, the need to recognise the existence of culturally constructed norms. More precisely, the first part was devoted to the study of the rites of passage which follow birth, as in ancient Rome a newborn child only became human when a second birth, social this time, had taken place. The second part discussed the contrasting discourses relating to the death of the child (legal, philosophical, archaeological...), the third one analysed different responses to the birth of a child displaying physical abnormalities. In 2003-2004, the theme of the course changed. It was devoted to the study of Greek religion. The students explored two modules comparing Greek and Roman religion, also focused on a series of themes and contrasting Greek and Roman attitudes towards ritual practices (sacrifice), gods, divination...

Both courses followed the same blended-learning model with two weeks' periods alternating face to face and at a distance moments. During each period, students explore one thematic chapter. The first moment of the course is a face to face session explaining this work organisation and the objectives of the course to the students. The course is based on an active learning process. Students are asked to explore the thematic by using resources available in a web interactive e-book. At the end of the week, students form groups depending on their interest for a topic from a proposed list. All the groups register through an online forum that is also used later to manage the work evolution of the different groups. Then, using the same

online resources and during the second week, students' groups are preparing a seminar on the chosen topic. They present it to their colleagues and to the teacher during a second face to face session. The process is then repeated during the next two weeks for another thematic, and so on. At any time, students can communicate with each other and with the teacher by email.

RESULTS AND DISCUSSION

Global acceptance of the course and focus of the study

One question of the questionnaire is aimed at determining the global acceptance of students for the e-Learning course (see Table 1). Three quarters of the 2002-2003 students say that they would like to take another virtual course, thus indicating that they globally accept the present one and only a small fraction of them indicate a global refusal. The 2003-2004 positive students, despite a large majority, are significantly less and the number of their colleagues having a negative appreciation is much higher than the year before.

Table 1. *Would you take another virtual course?*

	Yes	No	No answer
% of 2002-2003 students	76	8	16
% of 2003-2004 students	58	42	0

Table 2. *Main differences between the two groups of students*

	Number	Level	Topic of the course, new?
2002-2003 students	25	2nd year in HE	Yes for 83%
2003-2004 students	80	1st year in HE	Yes for 87%

When the results of 2002-2003 were analysed, they appeared as being very positive thus revealing a good course. The pedagogical and organisational principles of the course were thus unchanged for the next session. The only radical changes between the two years are the students' characteristics (see Table 2). First observation: in 2003-2004, the students are mostly beginners, with little or no experience in higher education and their learning autonomy is very low. Second observation: because of the large increase of the students' attendance, no other teacher could be recruited on time and the tutorial ratio decreased a lot. This article is therefore focused on how the changes in the audience impact on reception of the course.

Learning efficiency of the e-Learning course

Table 3. *Could you identify the course objectives?*

	Yes	Partly	No	No answer
% of 2002-2003 students	92	8	0	0
% of 2003-2004 students	69	-	29	2

A first important impact is linked to the identification of the course objectives (see Table 3) which is much more difficult for the students of the year 2003-2004. It seems to indicate that the main reason is their lack of experience. Indeed, in order to understand what they have to learn, more than 70% of the students use the same resources in the two groups (first 4 columns of Table 4). As a result, almost all the experienced students are able to achieve the task. Instead about 30% of the 2003-2004 students can not. This difference of ability is also visible when 2002-2003 students say they choose their own mean (see Table 4, 6th column).

Let us remark also that, for the two groups, it is a pity that no student says he is asking one of his colleagues. Instead the teacher remains the favourite resource.

Table 4. *What resources are used to identify the learning objectives?*

	E-book contents	E-book activities	Teacher	Other students	Forum	Other means	No answer
% of 2002-2003 students	29	5	37	0	-	19	10
% of 2003-2004 students	29	6	40	0	7	1	17

The learning efficiency perception is also related to the way students evaluate how the different resources of the course help them to achieve the learning of the identified objectives. Let us precise that the online “forum” presents the course organisation (activity, group and timing) and the “e-book content” contains the most important part of the content objectives. Table 5 shows the percentages of students evaluating this learning efficiency as “very good” or “good” for the most important online resources. 2003-2004 students attribute a much lower efficiency for almost all the online resources (email is analysed after).

The appreciation of the tool “e-book activity” is much lower, when compared to “e-book content” for the two groups of students. The pedagogical function of these activities was foreseen by the course designers as another approach on the thematic allowing the learning of other notions that the ones described into the “e-book content” part. But the 2002-2003 students applied cognitive models, valid for traditional courses, by using them as application exercises to check what they had learned from the “e-book content” part. The teacher enhanced the communication of this new role for activity during the second year but further work is still needed on that particular point. It is also important to take note that 60% of the 2003-2004 students evaluate the learning efficiency as “very good” or “good” for email with the teacher and only 40% of them make the same evaluation for email with their colleagues. This result indicates they believe the teacher has the right answer and not their colleagues.

Table 5. *What learning efficiency of online resources? (very good and good)*

	Web site	Forum	E-mail	E-book content	E-book activity
% of 2002-2003 students	85	60	50	80	40
% of 2003-2004 students	55	30	50	55	40

For them also, a course is given by the teacher. Indeed they estimated the seminar that they prepare and present in group as being poor. Efficiency “very good” or “good” is given by 30% of the students only for the preparation of the seminar and by 45% of them for its presentation. Instead, this efficiency is given by 85% of the students for the seminar presentations of the teacher. And 20% of the questionnaires contain spontaneous comments like: “I find very interesting the idea of a course on the web. But I really did not like the seminars done by students. They bring nothing. Why the teacher is not making herself her course?” (this is no direct translation but the exact meaning is kept). All these results indicate clearly a different perception of the learning efficiency with the 2002-2003 students.

This difference is further reinforced when considering the perception given by the two groups of students when they estimate what they learned, in quantity and quality, when compared to learning into one hypothetic traditional course (see Table 6). 2003-2004 students think the proposed e-Learning situation is less efficient than a traditional course. We must add here that 2002-2003 students could do 3 seminars. Instead their 2003-2004 colleagues could only do

one because of their big number and of the possibility of only one teacher-tutor. Just coming out of the college and doing only once the seminar, they had less practise of the learning activity and this increased quite sure their lower estimation of efficiency. Some students emailed the teacher that their presentation could have been much better with more practise.

Table 6. *Quantity and quality of learning compared to a traditional course?*

	Quantity of learning?			Quality of learning?		
	more	equal	less	more	equal	less
% of 2002-2003 students	16	50	16	58	33	0
% of 2003-2004 students	7	44	40	20	22	49

Another data about the learning efficiency of the course is the results of the exams that included questions both on the e-book content and on the seminar. In 2002-2003, 2 or 3 students only took the exam and they passed with very good grades between 5 and 6. In 2003-2004, 25 students took the exam and grades were varying between 4.5 and 6. Nobody failed and 12 students graded with a 6. Then the learning efficiency seems to be the same for the two groups even in the case of the 2003-2004 students who perceived it as not efficient.

Communication situation of the e-Learning situation

The communication situation is another important factor of e-Learning. And one can easily imagine that the appreciation of a blended-learning course is low for students who are just arriving at the university, feel alone and lost. Other scientists showed the perception of e-Learning course is much better if the communication teacher-student is well felt (Hong 2002) and is not implying a feeling of contact reduction (Lockyer & al. 2001).

But 2003-2004 students do not complain of a lack of contacts with the teacher (see Table 7). They are even more positive than their 2002-2003 colleagues. And many positive emails were sent to the teacher by the two groups of students and in particular by the 2003-2004 learners telling they appreciated a lot her personalised follow-up and the special interest she had to their work. Table 7 shows also students do not feel a lack of contacts with other students. The teacher however said the negative emails she received concerned an isolation feeling of 2003-2004 students who do not know anybody and can not join a group of learners.

Table 7. *Do you want more contacts with teacher and students?*

	More contacts with teacher?			More contacts with students?		
	Yes	No	No answer	Yes	No	No answer
% of 2002-2003 students	25	75	0	33	67	0
% of 2003-2004 students	9	84	7	27	71	2

Work organisation

Big work duration, felt or real can also have a significant negative impact on the global appreciation that students give to a course (Platteaux 2003). The two groups make the same estimation of their amount of work per week: 2 hours. More 2003-2004 students feel it's a little amount of work and more 2002-2003 students feel it's a big amount (see Table 8). This perception appears very logic when taking into account that the first students had three seminars to prepare and the second ones only one. Furthermore 83% of 2002-2003 students and 87% of 2003-2004 students say the indications on work organisation in time are clear.

Work amount and organisation seem not to be a main reason of the bad general feeling of the 2003-2004 students about the course. The amount of work permits in fact to see the difference

between the two groups of students: they all need 2 weekly hours of work instead the less experienced have 1 seminar to prepare and not 3.

Table 8. *What perception of work amount per week?*

	little and very little	normal	big and very big	no answer
% of 2002-2003 students	0	66	17	17
% of 2003-2004 students	27	56	13	4

CONCLUSIONS

Advanced and less experienced students seem to adapt quite easily when attending the studied e-Learning course where a lot of face to face sessions were replaced by ICT based work sessions taking place at a distance. They did not feel isolated thanks to the implication of the teacher-tutor! They also passed the final exam with high grades. But a difference in learning experience influenced deeply the way students perceive the efficiency of the analysed course. Less experienced students said that a blended-learning course based on one active learning process is not an efficient way for them to learn and they would prefer a traditional course model. Did we see here that less experienced students are more attached to ex-cathedra courses than hostile to learn with ICTs? More data would be needed to answer this question.

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