CNED

LABORATOIRE DE RECHERCHE SUR L'INDUSTRIE DE LA CONNAISSANCE

HUMANITIES

WORK PACKAGE 4

Research & Evaluation

FINAL REPORT

February 1996

(English version)

(final draft)

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SUMMARY

HUMANITIES PROJECT

WORK PACKAGE 4. Research & Evaluation

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Chapter 1 : Introduction

Abstract:

The adopted research strategy is to restrict the initial field of study due to problems encountered to coordinate other research partners and late choice of universities where experiments would take place. Fulfilling research tasks devoted to CNED includes setting up observation protocols, testing methodologies, choosing a scientific field of reference with demo-seminars in Poitiers. This leads CNED team to investigate disturbing processes in the traditional way of university knowledge delivery, provoked by these demo-seminars.

The sources of knowledge are no more only lessons, books and hands-on experience, but also multi-media data bases and computer simulations. The format of learning activity could deeply change, reassigning different time, places and values to these different types of activities.

CNED, more especially the LARIC (Laboratoire de recherche sur l'industrie de la connaissance) was in charge of coordinating the research activity and also to make research. On its side, SCIENTER took in charge the evaluation process as well as research in economics. LARIC/CNED performed the second task quite well but didn't succeed to coordinate other partners, i.e. CLS, NOESIS and TECHNET. LARIC/CNED decided consequently to manage a restricted partnership with CESI and to work on a precise way on the observations of the demo-seminars.
In a very short time, we had indeed to fulfil the research tasks which had been approved by the Steering Committee. That led us to adopt a research strategy (1.1), to put in evidence the drastic implications due to the shortness of the experiment (1.2), to choose a scientific field of reference (1.3). That explains that the effective activity (1.4) has been substantially different from that which was previewed, in terms of effective partnership, but has produced a contribution which offers the necessary criteria for a scientific evaluation.

1. Fulfilling the research tasks devoted to CNED

1.1. The adopted strategy for research

The strategy, which was adopted, reflects strongly the requirements set up by the DG XII. Indeed very strong criteria have been applied to the research activity. The representative of DG XII, Monsieur Marcel André, stated during a meeting held in Brussels in January 1995, that about ten scientific papers should come out of this Work package, to be submitted to publications with referees.
During this meeting where Mr André set this condition, it was argued by the participants that ten results would be highly too much in a study related to social and human activities. But I found personally that the spirit of that requirement was good and I have tried to maintain this goal of providing final substantial results even if they were very small in size and limited in number.

1.1.1. More drastic conditions

It was made more difficult, because of other addictive conditions, namely :
- the very short period during which observations could be made. The demo-seminars in communication and literature in May were too early. For that reason, it was decided to focus on later experiments, that of demo-seminars in law, which should occur in October 1995.
- the very late choice of the universities where experiments should take place. That led us, also the impossibility to set up an effective cooperation, to focus our attention on a single university, that one of Poitiers. Also for that reason, we found necessary to make comparative studies with other groups of students receiving on the same site other interactive videoconferences (see below).
- the very late set-up of broadcasting and receiving protocols.

1.2. Implications to fulfil these conditions

To progress in that way had several implications :
• the first one, let us say the main one, was that we had to set up protocols to observe teachers, tutors and students learning at distance through demo-seminars, to enumerate the different

types of data we would extract and handle, so that we could deliver - approximately, let us stress that - conditions for replicability,

• the second one was that it was impossible to start from scratch in terms of observations. Other experiments, other sites had to be exploited for following purposes :

- to set up groups for further comparisons. CESI decided that way to exploit their ongoing visioconferences to gather data related to disturbances due to breaks occurring during the transmission process. At CNED, we decided to make preliminary enquiries during several satellite videoconferences organised for our curricula. Results gathered by Luc Jaecklé, Laurent Porte and me, enabled us to establish later useful comparisons with the data gathered during the demo-seminars,

- to test methodologies. Of course the methodology depends strongly on the scientific field of reference which has been chosen. (See 1.3) A main constraint was to grasp all what was observable during the six demo-seminars. For that reason, very much attention was devoted to delimit time scales and space references. Time code sheets have been set up so that the observers could notice minute by minute all relevant events. The TV reception room was arranged so that each participant could be easily identified as well as the possible interactions (see Jaecklé, below),

- to compare opinions with other participant universities. An effective weakness of this research activity lies in the fact that we have no comparisons term by term between two or more groups of students receiving demo-seminars. To counterbalance at the minimum this lack, Jaecklé has addressed a position paper through Internet to the other participating universities, asking them for reacting. They did it effectively, on a very contrasted way, the emitting university (Leuwen) sharing not the same opinions as the receiving ones (see Jaecklé, below).

1.3. To choose a scientific field of reference

The scientific domains to which the demo-seminars are relevant are numerous. A first one is the field of didactic studies through media, as did for instance J. Löwyck with telematics. The difficulty lies here in the fact that the contents of the curricula was very broad, resulted from various kinds of negociations. The lawyers in Poitiers, for instance, consider the contents of the demo seminar more as general information than as lectures in law about environment. Following that, it appeared impossible in Poitiers to evaluate the acquired knowledge by these distance conferences.

An other relevant field was this one of communication. Two major reasons led us to give the priority to this approach :

• the whole demo seminar system appeared as a clearly defined communication system, setting communication arrows between groups, i.e. a group to group communication system. On one hand : the broadcasting group, composed of experts scientists, students and TV technicians; on the other hand : groups in receiving universities, composed of teachers, tutors and students. As a matter of fact, the demo-seminar device did not allow horizontal communications between receiving groups. That is the reason why we paid very much attention to the role played by Internet facilities, with the underlying hypothesis that E-mail and listserves would support this lacking connections in the demo-seminar system (see H. Dubois, below).

• this communication system could provoke, it was our assumption, what we called a "disturbance" in the traditional way of university knowledge delivery. To evaluate this disturbance, we had at disposal during the demo-seminars :

- effective and observable behaviours such as : attention, interactions between peers, between students ant teacher, number of queries at distance by students (cf Jaecklé, Porte, Perriault, below),

- verbal data through questionnaires and interviews leading to put in evidence various representations of the communication system as well as its impact on the whole curriculum in law according to the teachers and the students,
- verbal data contained in the eight listserves designed for exchanges on Internet. These listserves are those which have been put in place during and after the demo-seminars in May in communication and in literacy.

1.4. The effective activity

At the beginning of the project, four thematic areas have been identified as relevant for the research program :
- economic research (WP 4.1)
This workpackage was taken in charge by Scienter since the early beginning of the work,
- learning and technology research (WP 4.2)
CNED was elected as responsible for this research area. CESI was associated to this work and studied more especially communication failures during visioconferences. The Institute of Psychology of the university in Neuchatel, which is a partner of the CNED's research lab worked with CNED and contributed to elaborate the problematics.(See text below by A.N. Perret-Clermont). Unfortunately, the researchers from Switzerland could not participate to the observation sessions because of the very long strike of transportation in France which occurred precisely during the demo-seminars in law.
Although many attempts to associate the other partners, namely CLS, NOESIS and TECHNET, it was not possible to set up a joint research program devoted to this specific area. As such the program proposed - out of the case of Neuchatel for strike's reasons - has been fulfilled by CESI and by CNED.
- cultural aspects (WP 4.3)
Two operators were involved in this task, TECHNET and CNED. CNED, on its side, has attempted to evaluate how cultural representations influence the distance learning process during the demo-seminars. On another hand, the study of the traffic on Internet has put in evidence the lacking but necessary role of a moderator. We had no interaction with Technet on this topics, which intended to study the role of a network coordinator.
- institutional and organisational aspects (WP 4.4)
Technet was responsible for this package. We have not had interactions with TECHNET on this issue. On our side, we did not succeed to progress with CESI in the field of evaluating competencies to assess hybrid teaching, as previously foreseen.

Tools, mediations and mediators in the transmission of knowledge

Anne-Nelly Perret-Clermont

Following up on Jacques Perriault's proposal for fundamental and applied research around the analysis of a dualistic model of knowledge transfer.
The teaching and learning processes have always implied some kind of dualistic model. But this model having remained globally unchanged for centuries it has become a taken for granted part

of reality and it is not so easy to reflect on it ; The arrival of new communication technologies is likely to profoundly disrupt these uncounscious premisses of education both on a cognitive and on a (micro-and macro-) social level.
These changes are worth studying not only in order to improve the teaching schemes and tools that are presently being deviced, in particular in distance education, but also as an opportunity to enter more deeply into the understanding of this fundamental human activity by which individual and collective experience is capitalised and transmitted from person to person and from one generation (or cultural zone) to another. This opens new ways also to important epistemic questions on the nature of knowledge (too often taken for granted in educational practices) and on its not only social but also psychological functions.
Indeed the arrival of telematics as new means for individual and mass communication disrupts the traditional school understanding of teaching as requiring on one hand a "transmission time" necessarily based on a face to face interaction between tutor and pupil, teacher and pupils or between pupils ; and on the other hand a "time for interiorization" and "individualization" of this socially mediated knowledge through individual and isolated homework ; The new available tools allow for new distributions of roles and time : the sources of knowledge are no more only lessons, books and hands on experience, but also multimedia data basis and computer simulations, Social interactions between the learning partners (teachers, students, experts) can be distal. The "homework" can be done one-line with just in time advice and not only in an isolated context.
These possibilities do not mean that individual reflection, face to face interactions, lessons and libraries will loose their roles but that the format of the learning activity could deeply change, reassigning different time, places and values to these different types of activities; But will it really change or are the traditional taken for granted schemas so deeply rooted in minds and social practices that they will inhibit alternative thinking and creativity ? Or will the telematic tools themselves introduce unreflected and unconscious changes in the practices and what would these be? In which parts of the learning activity will these tools find their "nests"? Will their use modify the understanding of what knowledge is, the relationship to experts, the social interactions between co-learners, the transferability of the knowledge learned? Will new "power games" replace the traditional competition of the school partners? Will this modify the time allocation to learning in word places and families
J. Perriault has very clearly made the point that history and anthropology of techniques have reported consistent discrepancies between the projects, scopes and modes of use that the conceivers of the techniques assign to their production, and those that are set in action by the users themselves, How will this phenomena appear around the telematics means offered for the transmission of knowledge? Psychologists have observed the cognitive and face saving strategies that computer users develop in front of teaching sofwares. What will be the impact of the users representations of self and machines in their relation to distance education friendliness? School educators are getting used to the power games that take place in informatic classrooms - what rituals will mark the entrance in the different "layers" of this social sharing of information but also of meaning and value? To what extend will the characteristics of the technology (including "details" of these !) mark the processes ?
On the socio-cognitive level some further questions can be asked : Will the use of telematics devices influence the type of information transmitted and, as a consequence, either the contents of the curricula or the conjunction of proximal and distal learning ? Teaching has always been a "multi-voices" activity (these being for a given subject matter for example : a teacher, a curriculum, a set textbook) but in multimedia distance education the number of "voices" can theoretically increase tremendously : will it ? How will the student deal with the confrontation of these different sources and their discrepancies? What will be the information seeking strategies of the learners ? How will information be psychological value? Will it become an exchange value for establishing new social networks compensating for the disappearance of the

daily contact with co-learners appear... re-establishing the habitual peer activity of classical classrooms but with the integration of the new teaching tools and of a person in the role of a "coach" rather than a teacher ?

On the affective level, how will the identifications processes function ? Learners often report that they got enthusiastic for an area of knowledge because they were impressed by the teacher who presents - but also "emblematically represents" (S, Pain) - this knowledge. Who will be the affective mediators of the learning process in the scene opened by present telematics Peers ? Technological experts ? Or some new kind of education media stars ? What will be the impact of these mediators on the learners' personal sense of identity, control and social skills ? How will tool mediated learners negotiate their social life and status ?

Drawing upon the work of Pierre Lévy & al, on self and comparative assessment : what could be the interplay between learning and assessment facilities ?

On the cultural level, how will English (most often vehiculated by technology) and the other languages share the range of activities ? Will English progressively become the languages become confined to the study of the past, arts and literature ? Will there be cultural differences in the reception of information and its interpretation? Who will be the passive and active members of the growing networks ?

In other words, back to J. Perriault's questions, given the nature of the technical mediation devices, one can ask how the collective projects will meet the individual and collective actors modes of use and strategies in the field of communication, education and professional training.

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Chapter 2

Survey of CNED interactive video-transmissions

Abstract:

The team investigates existing interactive video-transmissions organised by CNED. After checking research litterature on the subject and getting feedback from partners, student models and analysis grids are built, questionnaires are designed accordingly. Case studies are conducted in CNED reception sites in Poitiers region. A wealth of results is gathered from answers and comments to the questionnaires in numerous settings.

CORPUS (CNED ITV)

Audiovisual documents
- interviews with the participants of interactive videotransmissions, by Laurent Porte
- videotapes of the Humanities IVT on communication (Umberto Eco), Scienter
- CNED videotapes of 3 IVT between September and October 1995

Documents received
- "report of the IVT training session about image semiology", Jean Duchaine, 14.11.95
- "innovation process within European university. The place for open and distance learning", Claudio Dondi, sent by I. Zucchini, Scienter, 8.11.95
- guide on the Humanities Internet services, e-mail Hannu Markanen, 17.10.95
- demo-seminar questionnaire, Rome, Véronique Fualdes and Jacques Perriault, 5.11.95
- Telefax from Soren Pold to Jacques Perriault, 7.09.95
- "Research programme", Jacques Perriault, 15.08.95
- "Evaluation of the Humanities project", Soren Pold, summer 95
- European Open University Network ("Open and Distance learning at work"), Sally Reynolds, 6.11.95
- texts on the Web from Technet.

Preliminary documents
- Humanities : research orientation
- identification of the logic of usage of a videoconference
- analysis of the answers to the IVT questionnaire
- triangles of techno pedagogy
- influence of the TV model on IVT
- models of representation
- introduction-questionnaire-analysis grid
- analysis of Soren Pold text

Survey documents
- protocol of the demo-seminars evaluation
- questionnaire from Véronique Fualdes
- answers to the questionnaire (from Véronique Fualdes)
- high school pupils questionnaire reception site (computarized creativity in high school)
- high school students questionnaire reception site (Marc Ullman)
- students questionnaire (DEUG LIC) (UNESCO)
- students questionnaire (new version)
- 3 tables of answers
- 1 final table of 3 IVT
- CNED IVT, 19.09.95
- Monitoring grid for the demo-seminars, Scienter
- Monitoring grid for the demo-seminars summary, Scienter

Meetings reports
- September (J. Perriault, M. Arnaud, L. Porte, L. Jaecklé, J. Duchaine)
- October (J. Perriault, M. Arnaud, L. Jaecklé, J. Duchaine)
- November (J. Perriault, J.F. Perret, L. Jaecklé)

PRELIMINARY WORK

Can we build a pilot IVT in order to compare with Humanities IVT ?

We can then estimate whether the device is suitable to university cursus in comparing high school pupils reactions with students' ones.

Use of Internet facilities

J. Perriault notices that tutors have not enough time to answer student questions through Internet and that the group was not important enough to be sure to get an answer to one's question. This use is contradictory to the general meaning given to Internet which is supposed to be world wide and to give an answer to each question. It seems that Internet have been used as a BBS... It means a gap between the advantages announced and the real practice.

Which difference between literature, communication and law programmes?

"There is no picture"

Cost of original pictures is expensive, that is why "there is no picture". Broadcasting prevents from "amateurism", computer graphics must be well prepared with the contributor.

Academism ?

We could be in quite academic model of knowledge transmission (lack of involvement from professors in new things). The actual disturbance is not so huge and we are definitively in a logic of usage because of the technology appropriation and insertion in the preliminary scheme of usage.
The term "knowledge access" is therefore wrongly used since TV model does not allow individual knowledge process. It is true for videotransmissions and Internet forum.
But what is the influence of change resistance and lack of technical skill ?

Recommendations on the medium-message relationship

Technology should be introduced into the content. This brings the issue to my understanding of giving sense to what we are doing. If the video is used to shape the image, what is the use of video ? If computer are used to train to computer science, what is the use of computers ? The answer is to notice that there is a change in structuration of knowledge. The process induces new behaviours and new concepts which modify knowledge nature. The use of technology is to draw experiences from interactions with each other.

Hierarchy written word-speech-image

I feel that academics (see article from Soren Pold) recreate written work pre-eminence either by resisting to technological changes or by searching efficiency. Just because there is no picture (one says they are illustrative, they divert attention, seem superfluous...) the only one is the one of the lecturer and the studio; as it is limited we focus on speech and dialogue ; his aspect is poorly appreciated and participants prefer to write on Internet...

Problems through Internet

One hypothesis : influence of mental attitudes of Latin countries.
There a spill-over of communication which can not be handled because of the device and not because of the content.

Some IVT include visioconference : which effects ?

Filter levels

- self-censorship
- "master of ceremony"

- tele-reception centre
- monitor of the reception group

A situation of communication, not of information exchange

Participating in a IVT means the willingness to confirm a preliminary relationship. For instance people come to see Umberto Eco to show they are used to his work or to the image Eco gives of him. Talking with a distant "star" could have positive and negative effects :
- positive : dialogue with an expert
- negative : speech of the expert would express a certain vision of the world.

What is the role of the ritual sentence over the huge number of calls in the switchboard ?

Probably to show to the participants the interest of their speech.

Knowledge structuration in 2 models

Proposition and procedure. New technologies develop the procedural aspect.

Relationship between communication and identity (see spectral communication)

Attention peak

principle of attention peak : 1.30 minute max. to keep the attention level steady.

Peers in situation of problem solving

- expression of the problem perception
- speech which influences other peer
- creation of a common system of reference

How each person see the world of the other

Technical point of view on pedagogy and vice versa. We should work on crossed representations of both professor and student. Each of them has a point of view on others.

Below some notes on the way to compare scenography from TV and IVT models

The general trend seems to be an instrumentalization of picture and human voice.
Can we think of an instrumentalization of academic speech (usually based on a linear speech) and the professor image ?

Hypothesis : TV model

The video language : squeezed shots, reduction of the number of shot types, very frequent music, stereo sound, sound level very high, aesthetism, colours harmony/palette simplification, borrowing from typography and design, pre-recorded laughs, showing the audience, resorting to virtual image, morphing, nervosity, rapidity of the editing...
2 French models : TF1(popular) and M6 (urban-in).

The television news as a model

The television news is interesting since it is a collective production.
Main elements of information production : frontal position of the anchor person, pre-eminence of speech, weakness of the visual part.
The anchor person is assisted and challenged by post-production processes which maintain both the punctuation and the rhythm necessary for the news by visual means apart from the speech.
French newsreader do not have the moral authority of the Anglo-Saxons.
It is the control room which chooses the pictures to put on the screen, the picture of the anchor person appears among others.

This shows power relationship between journalists, graphic designers, scriptwriters and set designers.

Style

Is it possible to notice in IVT the reference to a style : commercial, video clip, documentary ?

Audience study

For a long time the analysis of audiovisual techniques had turned on effects (manipulation of the audience by messages) then receiver reaction (no, audience is not stupid). Here with the Cned ITV the problem lies before and corresponds to the aiming at "who and where is the audience".

The insistent question of the lack of picture

Generally speaking TV is chronically story deficient, which is easily understood, but also pictures, which is less easily understood. IVT don't avoid the syndrome of "there is not enough picture", both in reality and in imagination. For instance pupils from our pilot-groups regret the lack of pupil creation in the IVT although we have seen plenty.

So if this request is justified (too many dialogues, according to a pupil) shall we go on to propose talking heads to them ? Are the demo-seminars visual ? How can we broadcast computerized image (computer screen) and good sound on TV devices ?

SUMMARY OF THE ANSWERS

1. Building the questionnaire

- analysis of the critical comments from Soren Pold
- 3 series broadcast on IVT CNED
- analysis of the questionnaire from Véronique Fualdes. We decided to test some questions from this questionnaire and we adapted them as follow :

Do you estimate that this way to transmit... question not asked

Do you mind that the distance learning... same question

Did this transmission modify attitude... same question. See answers and comments for this important question.

Did this transmission modify way of learning... This question has been specified (question 14, 14'...) to precise traditional means.

Are you more motivated to exchange with Prof.... "Professors and students" replaced by "experts and professionals".

group to group communication... This question has not been asked to pupils.

Internet... This question has not been asked.

Learn something about media communication... Changed into "learn about audiovisual technology".

Participate next year... "Do you want to participate to other IVT?"

"Do you want to participate in the studio, at CNED?" (for pupils in the reception site)

2. Public

High school pupils of the "High School of Venise Verte" in Niort. IVT on computer and creativity of 17.10.1995.

High school students (literature major) in the studio : prospective IVT on Citizenship of 16.10.1995
Undergraduate students in "DEUG" previously called LIC in Futuroscope in the studio : IVT on UNESCO.
These 3 groups of less than 30 each are not statistically significant.

3. Answers to the questions

No answer rate :
14 % of the questions (high school pupils), 2.5 % (high school students) and 8 % (University students) were not answered. High school pupils have difficulties to answer the questionnaire. Problematic questions are mainly about the relationship between IVT and work methods at school. This result shows that high school students are more accustomed to think about their learning.

Question 1 : conference difficult to understand?
Pupils pretend not to have problems to understand the content.

Question 2 : conference too theoretical?
The content does not seem to be too theoretical, except for some high school pupils.
High school students : "people speak too much for nothing".

Question 3 : Desire to participate to other IVT?
Pupils mainly answer yes, but the difference does not really appear for high school students who were present in the studio. The adhesion is neither obvious nor strong. High school pupils are more enthusiastic but not unanimous. University students are more enthusiastic.
High school pupils : Yes : "it is a way to learn, for the information supply, to see the work of others, for the future". No : "too many dialogues, prefer to be in the studio, not enough of pupil creations".
High school students : No : "useless, too short, it does not bring anything, no concrete finality, too directed". Yes : "direct answers, a way to discuss on issues at stake, interesting content".

Question 4 : Theme clear and well defined?
High school students (Ullman IVT) are divided on this question (predominance of negative responds) whereas high school pupils mainly answer yes, like University students.

Question 5 : Did you get enough preliminary information?
Pupils are divided. University students answer yes.

Question 6 : Do you intend to use what you have just learnt?
High school pupils : 100 % of yes ("at home, at school, for advice on courses"). University students : 92 % of yes.
High school students : short majority of yes ; No : uselessness of what is said; Yes : "for illustration, at school, in my life of citizen, at home".

Question 7 : Did you prepare any questions?
High school pupils : no (normal)
High school students : 70 % of yes
University students : 92 % of yes.

Question 8 : Did you ask the questions you were interested in?
High school pupils : 25 % of yes (no : "any question to ask")

High school students : 80 % of no. See question 7. It is probably because of an important frustration and a resentment against the device. Pupils were given by the organizer the opportunity to ask question and they did not do it.
University students : 61 % of no.
High school students : No : "issues too matter of fact aspects, not enough time, no opportunity".
University students : No : "lack of time, difficult to intervene pertinently".

Question 9 : videoconference too long?

Yes for high school pupils (IVT of one hour and a half). Possible factors : average capacity of attention, capacity of attention according to the age, content.

Question 10 : Did you receive any preliminary documents?

No for high school pupils. Trend to answer no for high school students.
Redundant question with question 5 : there is an opposition in the answers because the ones who pretended having enough preparatory information regret not to have enough preliminary documents.

Question 11 : Did you pay attention permanently?

High school pupils are divided. Quite unanimous yes for high school students, 61 % of no for University students.

Question 12 : Did you want to participate in the studio?

Majority of yes for high school pupils from the reception site (yes : "to see the professionals, for the experience, to participate in the debate" ; no : "it is too long)".

Question 13 : Do you have the impression of participating into a special event?

Great majority of no for high school students. Majority of no for high school pupils. 53 % of yes for University students.

Question 14 : a way of learning which brings more than a traditional lesson?

Trend to answer yes for high school students and no for high school pupils.

Question 14': supplies something else?

Great majority of yes.

Question 14'': supplies more than personal work?

Trend to answer no for high school pupils. Majority of yes for high school students.

Question 14''': supplies something else than personal work?

Majority of yes.

Question 15 : Do you have the feeling of participating in a TV programme?

High school pupils are divided (No : it was interactive, it was live, we can participate in the debate; yes : we can see microphones and stars, several points of view are presented, we can see the TV host).

Question 16 : do these sessions integrate into the lesson?

Majority of yes, uncertainty of high school pupils, doubt for University students.

Question 17 : Did this IVT modify your teacher attitude?

Either no answer, or negative answer (high school pupils : no : "he has not changed, he did not say anything, he was as he is usually, he is used to computer science").
High school students : No : "there is no reason why, he did not change his behaviour".

This question on the behaviour poses some tricky problems : pupils do not know how to understand the question, and teachers feel embarrassed. We can put it the other way round : ask if the polled person feels that his/her perception of the other is modified. For instance : "Has your feeling toward your teacher changed since you have worked with him outside of the classroom ? Explain".

Question 18 : Do you feel more motivated to exchange with experts?

Positive answer for high school pupils (high no answer rate).
Majority of yes for pupils, 77 % of yes for University students.

Question 19 : Did you learn about audiovisual technology?

High school pupils answer yes but there is a confusion between the content of the broadcast and the device. Yes : "3D, advanced multimedia universe, modelling, texture, demonstrations"; No : "I already knew what have been said".
High school students mainly answer yes but without any misunderstanding on the question. Is it their presence in the studio which helps their understanding or a more advanced maturity?
High school students : No : we are already used to this; yes : "to hold a microphone, camera angles, to live this experience, made-up questions".
University students : yes : "live conditions , camera movements, coordination".

4. Observation of a broadcast device : "Citizenship"

- in the studio : lecturer, pupils of a literary class from the "Lycée Pilote Innovant", journalist-organizer, technical staff.
- invited audience : many techno-pedagogues, many politicians, the teacher of French.
- sound problems : picture is much more mastered than sound by the control room, dependant of the competence of the participant to speak correctly in a microphone. We "take" the picture of the participant but the participant "gives" his voice.
- It seems that the main loudspeaker (the one which conveys questions asked live or through the phone desk) is pointed towards the audience.
- A pupil from the "Aliénor d'Aquitaine" High School asked a question, although no class was listening at the documentation centre of this High School.

5. An other observation of the device : didactic IVT

- in the control room : agitation mainly when broadcast of pre-recorded sequences.
- in the studio : dialogue between the journalist and the participants (rehearsal of the procedure) "I ask you a question, you answer and..."
- Familiarity of participants for pupils. Connivance in the studio (smiles about the questions, a little bit of condescendance). To put the participants at ease?
- content : about the mental attitude and motivation in educational learning. Why using a specific vocabulary ?
- questions from pupils : questions very well prepared. No dialogue (question-answer-stop)
- format : very cool credit music.
- feeling : participants have the impression of a speedy rhythm.

7. Observation of a IVT reception (computer and creativity)

Present : 12 pupils from a neighbouring high school (collège) and their teacher, audiovisual tutor of the High School, the teacher of plastic arts, the principal of the High School and non identified person. The teacher is as well animator in computer science. No pupil from the High School attends the broadcast. It takes place in the audiovisual room on wide screen, in the dark. Pupils pay attention during the first hour. It is not possible to know if their lack of

interest (in the third half an hour) comes from the content in itself (mainly presentation of the "Soft Qui Peut" demo) or from the mechanical effect of the session duration.

8. Conclusions

Important positive effects :
Pupils intend to use what they have learnt (in the everyday life), the level is adequate, pupils (collégiens) want to participate in the studio, they think the sessions were well integrated in their cursus, students complete their courses...
effects on knowledge :
% of "yes" answered to questions 14

	high school pupils	high school students	University students
more than lessons	42	60	46
sthg different	75	90	92
more than personal work	25	70	76
sthg different	75	90	92

The important part of production and coproduction conditions :
That is curious, in the middle of high school pupils interested in concrete computer applications, to see on the screen producers and financial partners of "Soft Qui Peut", to hear them describe this event with images of the Futuroscope Park in the background. Same feeling with the noticeable presence of politicians in the studio.

HUMANITIES PROJECT

WORK PACKAGE 4. Research & Evaluation

FINAL REPORT

Chapter 3

Demo-seminars observations

Abstract:

Six demo-seminars are organised for Humanities partners so that a group of students in each participating university is part of them. Signs of inadequation of traditional learning models to the situation, appear clearly. Communication devices modify student interactions, although most of them are unable to envision the technical settings of the demo-seminars. Interest is not running very high among students who seem impeded by language barrier and lack of concern for the matter debated on the air and on the set. Maybe the reason can be found in the disturbing aspect of this new approach to knowledge. Hybrid teaching is not yet in effect, these demo-seminars tend to prove it.

STUDENTS ANSWERS

We expect from the hybridization of 2 sorts, the creation of a viable species which is not a juxtaposition of 2 sort of species but an original and fertile result.
In higher education context which is broadcast within Humanities programme, it means acquiring knowledge, know-how and social-skill compatible with the University tradition and needs of firms through distance communication devices.
Humanities would be the laboratory of fertilization of an educational model by a communicational model. In that way, the observation of an alternative system of presential and distance communication would represent an insufficient sign of an hybridization dynamic.
Before describing what shows in students attitude, sometimes a respect of educational model, sometimes a respect of communicational model, sometimes the emergence of an original, creative solution which allow to reach the programme objectives, we have to present initial conditions of the experience, through a students description, when they come in the room, in the evening of the 27.11.95 (moment To) . Then follows the portrait at the moment T1.
The inertia of the educational model is opposed to the weight of the communicational model. This opposition saturates the spectrum of students attitudes and prevents from the emergence of a creative hybridization model. The choice of the words "inertia " and "strength" shows the objectives of Humanities administrators. Under the term "weight of educational model" we gathered direct signs of educational model respect and indirect sign of communicational model reject. Under the term of "weight of communicational model" we gathered direct signs of communicational model respect.

Description of the group (To)

In all fields (content, location knowledge, experience of distance learning, technological skill), students from Poitiers appear inexperienced. The analysis of the group profile and of some individual characteristics seem to show that the participation in the seminars was for the students from Poitiers a completely new experience, in spite of the preparation work done with the professor and the tutor.
To a question about European environmental law, none of the students answers he/she has a special interest towards their topic. 5 students over 16 (nearly 1/3) are not especially interested in European law.
68.8% do not come regularly in the Futuroscope site. 62.5% come for the first time in the Futuroscope training area.
None of the students has experimented distance learning.
4 students over 16 declare using regularly a computer, 9 use it sometimes. CD-Rom is used sometime by 5 students. 63% of students have never heard from hypertext.
According to the technologies, 75 to 87% of students declare having heard about videoconference, videotransmission; interactive videotransmission, Internet without having used these technologies.
The average of age is 23, 1/4 of male and 3/4 of female.
The study does allow the differentiation par gender. The term student has to be considered in a generic meaning and can concerns a male or a female.
Contrary to what happened in other Universities, students were not selected according to their fluency in English. All students were invited to participate. There was no student who did not belong to the advanced degree.

Half of the students pretends having an average level in English, 31% declare they are good, 12.5% answer they are useless in English and one does not answer. Some students have participated in Erasmus programme.

Description of the group (T1)

The course of the group of students, during the 6 demo-seminars, as I see it is the following:
Students are subjected to disruptive elements in their academic environment. They answer in a contrasted way:
- a great minority rapidly appropriate technology: they will know how to take advantage in terms of knowledge, sometimes they will have to invest their work habits in this new context, but they will be frustrated by the gap between their expectations and some realities of the system.
- a weak minority shows its refusal by withdrawing: their cultural background or their expectations are far from the learning model proposed by the device.
- half of the group takes refuge in the passive respect of the canonical higher education model.

THE WEIGHT OF COMMUNICATIONAL MODEL

Effects on the group

We think that the U can be broken down into 3 areas because of the use of distance technologies.
This distribution shows 3 areas in the "U" formed by the tables in the room.
* area A : around the microphone and the professor and tutor (round of the "U")
* area B : intermediate (legs of the "U" near the round)
* area C : at the ends of the legs of the "U".
In the A area there are many interactions both in the group and with other Universities.
Only the students of the A area exchange their place because of the fixity of the microphone.
None of the other students has been in direct relation with the other Universities.
The B area is a transit area : there is located the student who will ask a question, private conversations show a weak stability of the under-groups.
In the C area there is a weak activity : few notes, participation in the debate in French, 5 students will devote about 30 minutes to the reading of the Humanities documentation.
The most active student (who will mainly stay in front of the microphone) will face two constrains: to be near the microphone and to sit near his friends.
He will choose the first possibility. He will stay then on the same line as the professor and the tutor, at the left of the tutor. It seems to me that he therefore represents a kind of "heir".

Asking a question: a moment of stress

We observe the following:
- The preparation of the questions is under the constraint of time, which is very short after the TVconferences. Preliminary debate gather the 3/4 of students of the 3 areas including the non-anglicist which have then the opportunity to be involved in the debate. But the preparation of the questions is generally done through private conversations between the tutor or the professor and 1, 2 or 3 students.
- An implicite rule of "good conduct" is being made progressively between Universities on the sharing of speaking time. This sharing is not based on the duration of the exchange but on the

number of questions allowed. The regulation determines the 2 questions. Every violation of this rule generates a deep reaction in Poitiers.

Perception of the device:

We asked students to draw the global communication device.
Some drawings show under-groups for exchanges within students. These elements confirm our idea of polarisation around the microphone. Students prefer audioconferences, even if the technologies are quite similar regarding sound processing.

Identity reflex, typically media based

During the first seminar the town of Poitiers (and others) did not appear on the map which presents participant Universities. This generates an immediate weak attention in the group.

Oral distant interactions

There are at least two aspects in communication through audioconference, two implication levels: to get one's identity and to participate in the debate. First, existing to be able to participate and communicate to exist better and more. The fact that the town of the participants did not appear on the map generates in Caen like in Poitiers a special feeling as they were not recognized as an accepted interlocutor.
Schaeffer shapes interactions between participant in a situation of communication by the mean of a model based on the separation of participants in 3 categories and specifies 3 levels of language.
The 3 levels of language help us understand the gap between ideal interactions and real exchanges in a context of identity-communication-action relationship.
His typology of thinking informs us on a third level: besides the dialogues related to the subjective situation (identity confirmation), besides dialogues related to knowledge (confirmation of a previous relationship), there are dialogues which refer to action, power.
The trilogy of speech act in a context of distance interaction would be the following one: identity (to exist)-communication (to know)-action (to be able to).
We can define an ideal case of interactive dialogue, available in distance communication or in presential mode: the intervention of a student shows him as an accepted interlocutor, he discusses, his intervention is an action which produces something, for instance a debate.
This balance is fragile since there is circularity, interrelation:
*If the recognition of the identity is not asserted the participant has to face without the recognition of his peers or superiors and the effect of his speak disapears, as well as the debate on the content.
* If the intervention does not produce anything (no debate) the feeling of identity can not be reached.
* If the participant does not deal with the subject the debate should normally come to a sudden end.
The necessity for the moderators to manage fairly the debate seems then important in minimising the risk of lasting self-image wounds.
The origin of difficulties to reach the optimum is multiple and the management is tricky.
Example of dysfunction:
- a participant has not the opportunity to assert his identity,
- a participant speaks about something else and the moderator can not, do not know, does not dare to revive the debate
- a participant closes the debate.

EDUCATIONAL MODEL INERTIA

Reproduction of the first contact between students

Two students told us (during an interview) that the group tried to reproduce precisely what happened in the first lesson of the "DEA" when they took place the first time. According to them the group is divided into two groups, by affinities, following the length of the "U".
We could be in a reproduction scheme of a recent but already stabilized configuration.

Material conditions accepted without any conditions

Following a proposal by a CNED member, a physical reconfiguration of the room made by some students has not been considered. Material conditions of the beginning are accepted without any conditions. Only video monitors will be moved. It is maybe why a constitution of "groups of problem solving" will not happen (in order to ask a question or to define a common point of view to defend during the debate). The clarification of questions will be done sometimes by loud exchanges between tables but the most frequently by private conversations between professors and the student who is going to ask the question.

Respect

Students show and tell their respect for others and for professors. Human respect and professorial authority combine to attempt to maintain the professorial scheme in its globality.
- "I do not want to disturb every 30 seconds the ones who understand" (a student),
"we do not want to talk with each other, otherwise we lost the thread".
- The professor has just shown twice his disapproval towards what has been said during the broadcast. Students allow themselves to discuss in husted voice within little groups.
- Except few leavings before the end (justified), only one person stands up during seminars. This student will only attend one seminar, and he will be closed to fall asleep several times.
- It is interesting to notice the similar attitude of students during videotransmissions (live) and during the watching of the pre-recorded tapes. In spite of the tutor prompting, who proposes to stop the tape, a quick exchange between students will lead to review the tape only twice in one hour and a half.

Regularity

The regular attendance at the seminars is remarkable. Only two persons of the advanced degree will not come back after having attended one session.

A false representation of the global communication device

We asked students to draw the global communication device with the following guide-line: videotransmissions and audioconference: describe (with diagrams) the situation of communication as a whole:
- distant and local technical device
- the different participants (to define who they are)
- information flows (to define: video image, sound, computarized image...)
Our hypothesis is that there is a cognitive relationship, an overlapping of mental images with concrete image(to be represented through diagrams).

We have 9 answers, that is to say 15 drawings. We distinguish 2 cases: detailed diagrams (9 drawings), and the others (6).
In detailed diagram the close environment is represented precisely, students are represented, sometimes with their names. The outside presence as a source is limited to images and sounds or to their media (TV sets, telephones, loudspeakers).
In non detailed diagrams, the outside is represented as the same level as Poitiers. Audioconferences show crossed flows, since videotransmissions are unidirectional. Satellite does not necessarily appear. Participants disappear to the profit of the names of institutions and towns.
Students seem to have difficulties to draw precisely the communication device they have used. It seems they have been given a minimal information and their representation is far from reality.

How students perceive distant participants

In the questionnaire of the 27th of November, 100% of students mention not to have heard about the participant of the day (even his name). In the questionnaire of the 29th, only 4 students will answer that they know the participant and 2 of them will precise that it was the same one than the 27th of November.
This idea is closely akin to a remark of J. Perriault and S. Pold about the necessity of status and identity reference of participants.
Students attitude is not modified when distant students in the studio speak.
Students does not seem to be able to identify easily participants (or they do not care).

Ignored Internet

Several hypotheses are possible on the indifference generated by Internet.
-1 Students who already know the network do not see the interest of its use,
-2 students who do not know Internet are not able to imagine the type of communication they could generate,
-3 students are bored and their curiosity blunted.
Hypotheses number 2 and 3 are the most likely.

A relative lack of interest of students for audiovisual mode

Generally the focusing on the content understanding through learning strategies takes away students from formal concerns on the images perceived.
We have to relativize the importance of quality and style in image, in distance learning, even and especially for students who are used to a TV image which is very creative. A minimum is to be respected, especially for sound. We have noticed a general misbehaviour of the group during the seminar of the 6th of December. For technical reasons, the sound quality was interferenced, with a double effect: necessity to speak louder and masking of private conversations.
Used to the human picture handling, students do not expect in an educational programme to find the grammar of TV creative language of today. It goes in the same way as the recommendations of D. Wolton on the preservation of both school and TV worlds.

Humanities and audiovisual language

Within the context of a preliminary work, we have thought of the way to compare TV scenography and interactive videotransmissions. What did students see ?

Trend of TV model

A first trend is noticeable about the evolution of grammar of French TV language: shots squeezed on faces, reduction of the number of shot types, very frequent background music, stereo sound, sound level too high, aesthetic research on set format, colours harmony (Arte) or palette simplification (TF1), borrowing from typography and graphism, pre-recorded laughs, rejection of the rule which forbade to show the audience, resorting to virtual image, morphing, nervosity, rapidity of the editing...

Another trend of audiovisual is to seek an ever increasing intrumentalization of image and human voice.

A third trend is the constitution of styles : commercials, video clip, documentary, news, debate, play.

Explanatory model prevalence

We wondered if we noticed the influence of TV model on videotransmissions form. Our feeling is that audiovisual communicational model has a limited influence. Without getting into details, we globally share the point of view of Professor D. Breillat who is critical on the production of broadcasts, made with few financial means and in quite a short time.

Generally, audiovisual production in studio is correct for lack of being inventive. Disturbances occur when distant images are dealt with: constraints of visioconference produce a distortion effect on image (counter short, out of focus). The lack of fluidity of the image prevents sometimes technicians from correcting the angle shot (a part of students image is sometimes masked by an arm, for instance).

The shooting mode alterns a close-up according to TV norme (participants are cut as waste level) and an American shot (the participant is cut at his feet or mid-thighs, a desk hides his legs, we can see papers...). Close-ups are reserved for inserts on written incrustations which punctuate the professor lecture. The norm is to truncate humans. A students from Poitiers can therefore see the chest of local professors and the chest of distant professors-experts. We are not far from a statuary representation of the professor, close to the image of official portraits which open the conference of Professor Douma in Gröningen.

The intention is not to instrumentalize the image of the professor or participants, no kaleidoscopic effect, the control room stays at the disposal of the anchor person.

The real debate is on the necessity or not "to do TV" within higher education. The first hypothesis is that the technical device is not strong enough to impose a style the second is that the norms of audiovisual production are different in Northern countries of Europe, but it is not our feeling according to the pre-recorded tapes.

An example

There is an interaction between the educational model and the communicational model, but educational model dominates : the professor in his chair is transposed in a studio.

The scenography of Professor Douma's conference constitutes an experimental verification of our point of view. A panoramic screen starts on the collection of portraits of the University seniors and stops on the image of the professor in his chair who teaches a well structured lesson, in a noble surroundings (room with panellings). To secure the transition between an outside shooting and the continuation of the lesson, the scenario acts as if one of the students sit in the tiers of the room had a question to ask and alerted Professor Douma by beeper, like a kind of simulation interactivity of the future.

Influence of the initial conditions

The credits of Humanities positions the programme in line with the cultural Franco-German channel Arte: fluidity of images thanks to computerized palettes, harmony of colours, grace of the music with a baroque connotation (harpsichord), in harmony with the respectable past of European Universities. The image makes the connection between knowledge past (manuscripts with corrective glasses) and the present (a portable, window open on knowledge univers).The message is continuity, not break. The promise is also the one of easiness: traditional learning

requires a magnifying glass to get closer to the text; regarding modern knowledge you just have to wide open your eyes.
We understand better the disappointment of students from Poitiers who are in front of a mute professor (the failing local sound at the beginning of the broadcast will be rapidly repaired).

HYBRIDIZATION SIGNS

Strategies of learning adaptation

Some students take notes without orienting their head towards the screen. They are not necessarily good anglicist.
Our hypothesis is that non-anglicst students are in a second ranked learning strategy which prevents them from feeling some evidences (an expert who participates in two teleconferences) and from being interested in participants since they are too busy with catching mark-elements in information flows. So they do not clearly identify neither human participants, nor device components. Now, as Löwick noticed it, preliminary knowledge of the device plays an important role in learning quality. Students need clear, complete and precise information about media, work methods. Otherwise, in a context of free choice of device, the risk is that the most independent chose the most directive media (which teaches the less) and that the less independent chose the most open media (in which they lost themselves).Students who answered our questionnaire seem to have a quite clear representation of the global communication device. It might have been in Poitiers a deficit of preliminary explanations.
Students from Poitiers are not homogenous regarding learning styles. We did not proceed to specific investigations on cognitive styles. We just remarked the difference of attention modalities between audio and video. Speech listening translated into a self-centred posture. English non familiar students (C area) look from time to time... towards the loudspeaker. It would be interesting to cross this observation with the level of English skill, the self-centred listening could also be a sign of concentration in order to understand for non-anglicist students.
Because of their deficit in English, students strategies are not optimal and it is normal that they cling to whatever emerges in the verbal flow and in the visual flow (visual helps). They prefer filmed lesson, hybridization of educational and TV modes, since hierarchic information reassure them.

Video images and audiovisual helps for learning

During an interview, Professor D. Breillat will tell his interest for formal aspects of teleconferences. He regrets the lack of care given to some images (more decorative than significant use of external shots, bad shooting of videoconferences, lugubrious boxed piece of text...) and above all the absence of media specificity use (no newsreport, aspect of classical TV course taken by certain sequences...).
D. Breillat thinks this deficit is due to the lack of interest from Northern European countries for aesthetic aspects of TV image and for the weight of TV news.
Students have appreciated everything that represents a visual help for learning: well or badly done boxed piece of text, subtitles, background images.
They appreciate as well the conference of the 28th of November, a filmed lesson brilliantly managed by Professor Brinkhorst.
Students look moreover for keywords in the speech (which will help them to understand what is going on).

Notional acquisitions

Our system of measurement is quite imperfect. We tried to connect certain behaviours and the progress of teleconferences. We paid attention to the number of loud exchanges and private conversations, to the general sound level, to bodies movements..
The most important observation is that students are more sensitive to the theme of cultural differences. We have noticed several times a renewed interest during the expression of differences.
The most active students regret that conferences and debates did not deal more often with strictly juridical points.
Acquisitions will be assessed by professors at the end of the year.

Virtual mobility, European campus?

In a recent communication, Michèle Grossen and Luc-Olivier Pochon study interactions between a group of learners and software designers, in learning situation on computer. According to me we can summarize the authors contributions by saying that the use of a computer generates a cultural field which gathers users and designers.
Apart from the experimental device presented, I notice this concerns asynchronous devices. We need mediators so that double meaning relationships can occur. In this type of communication, which reality makes no doubt, distance (which is going to be reduced) is not geographic but temporal. It is in this time-space that mediators intervene.
Regarding Humanities, this text is source of thinking on the way students perceive their peers from other Universities, thanks to technology mediation. In this other context of synchronous communication, is there creation of a common cultural field of all students, which would show the idea of virtual mobility announced by programmators?
It seems that this dimension is not very present in Humanities context:
- students expectations were more about contents and technology than on distance relationship.
- foreign students are not represented on sketchings.
- network practice (Internet) interests a bit.
- presence of students on the screen seems without any effect (identification occurs hierarchically not with peers).
- there is a centration on local, the European virtual campus seems to be very far.
- a connection between Erasmus and Humanities do not seem necessary to them.
Students are disappointed by this lack of horizontal dialogue with their peers.
Besides, students show a certain interest for the expression of cultural differences, for instance through political points of view on environmental law. The presence of Greenpeace representative during the first conference has been the origin of a misbehaviour and debate within the group. The names which announced a national point of view maybe represent keywords for students (but they are also source of confusion, for instance: Holland in Great-Britain and "Hollande" which is the French word for Netherland). This lexical support in learning strategies would double the interest for the difference. The awareness of differences, which shows perhaps a withdrawal into identity worries within a national prospect, is maybe the first level of understanding of other, which would lean on the difference of way of life to build a community of interest.

lack of models

which prevents from comparating to other We are amazed by the difficulty to understand what happened in Poitiers through usual models.

I think that the disturbance can be assessed by the fact none of the models studied are really satisfactory. The pedagogical triangle does not allow situating mediators. In other models, the real place of students is not given. The communication model supposes a consumer mentality. There is an intrusion of a fourth actor in the pedagogical triangle: the technical mediator, who is added to the knowledge mediator (the professor).
There is no problem if students are their own technical regulator (self regulation). The Löwick model induces independent students (self regulation) who are in a way their own mediator; is independence is not verified. We have to build an ad-hoc model pedagogical types of contracts.

CONCLUSIONS

One of the characteristics of Humanities demo-seminars is for its main addressees (students) the subtle mix between constraints and freedom. The audience is partly captive, but only partly. The regular presence of students shows the flexibility or solidity of the contract which binds them with the University instance.
We can analyse their attitude as the search of a negotiation strategy in a changing environment. There is the sign of the "logic of usage" which seeks to put technology into a scheme, a preliminary representation, a project.
Humanities experience shows that lots of steps have to be overcome before an hybrid teaching become possible.
Signs of overlapping of the dichotomy educational world and communicational world are numerous.
Humanities demo-seminars have quadruple nature (as a disturbance), they have effects on the students group (as a message), they are an opportunity of acquiring knowledge (as a pedagogical moment), they are an opportunity of experimenting learning strategies (as a meeting), they involved personality in communication.
At the crossing of these four dimensions (creation of problem solving groups, redefinition by the medium of the content to learn, experimentation of suitable learning strategies, involvement of the person in pedagogical dialogue) there might be the future of hybrid higher education.

A CRITICAL LOOK AT THE MODELS

We are brought to make our observations in relation with models, about which we offer the following complete presentation.
We notice a general inadequation of models we call canonical. Only generic models allow to from encompass the entirely of observations. Pedagogical triangle model gives us a good descriptive model of disturbance, communication triangle model brings us the total explanation.
We deduct this superiority of triangular models on binomial models. Remains to be demonstrated the interest of including directly power games to the modelling process.
The pedagogical triangle model does not take these power games into consideration because the institutional level is an environment factor in this context.
We distinguish generic models, able to include the entirety of pedagogical fact or communicational fact from canonical models with a more limited scope. These canonical models are characterised as being truncated instances of generic models, for example, learning models in media-based environment are truncated instances of generic model : knowledge (apart from the pre-requisites) and teachers (apart from mentioning them as resources) are absent as structuring axes.

Pedagogical generic models pedagogical triangle representative : Schubauer-Leoni/Houssaye	**Communication generic models** communication triangle Schaeffer
Pedagogical canonic models archetype 1 : professor lecture representative : Dondi-Zucchini archetype 2 : learning in media-based environment representative : Löwick	**Communication canonic models** transmitter-receiver scheme

Research context

This study is not far from other University study works linked with Humanities on distance learning introduction in European Universities.
Under a general formulation, the question asked originally by Jacques Perriault was the following : what is this disturbance brought by distance technologies in University teaching and learning modes ?
We can reformulate the central question as follows : do demo-seminars offer a new type of contact among actors ? The following paragraph aims at positioning this study work with Claudio Dondi-Ilaria Zucchini and Löwick'works. We believe that it is absolutely necessary to complete their works by a study of students perception and behaviour, bringing a new point of view on the whole technical devices configuration. The almost complete disappearance or idealisation of students, although they are the first concerned, and the real end-users, is a striking aspect of some research problematics. In fast, these research papers authors share our point of view on the need of studying this aspect. The objective of Dondi-Zucchini word is to

study favourable and adverse factors to the innovation process at work presently in European Universities. This approach is clearly institutionalized and centred on Universities participation or tutors reactions. Footnotes mention that field work has not been included.

Canonic model of European University teaching mode

According to Claudio Dondi

Claudio Dondi gives us information about what is lacking in Löwick's model : professor representation of Humanities program.
If we understand well, according to the proposed institutional analysis, a gap between objectives and means would exist in European Universities. As institutions mainly subsidized by the State, the Universities have objectives to transmit common culture, development and growth of student as individuals to increase equal opportunities among students, to develop research and knowledge, to increase their capacities for the work market and to provide public service. Universities are at the service of their customers, the students.
Means are essentially human (insufficient financial means is a recurrent theme in speeches and reality), where the most numerous category, the teaching staff, keeps a tight control on the top hierarchy, creating a inverted pyramidal form which does not favour exchanges.
Users relationship is deeply unbalanced to the profit of content providers because student power is limited, quality assurance is self-ascertained and not based on students evaluation.
Specific culture of University organisation is shown particularly in new comers selection process. New professors recruiting is characterised by continuity and near-cooptation, building a cultural chain which makes any change very tricky.
Although University professors form a relatively well-knit community, their feeling of belonging to the University is weak because of young professors mobility, identification to the international research community, extra-curriculum activities.
Although Law, Medical sciences, Economy, have provided a good part of the political class in Europe (this hypothesis should be revised for France), the relationship with society remains aloof.
For that reason, professors have a strong spirit of independence, not worrying about cursus coordination. They are totally though for choosing pedagogical methods and validation conditions.
The system is not centred on learning and distance learning appears as a threat for professors autonomy and authority.
Only outside pressure forces Universities to change.
In this context, the pedagogical system can be defined as traditional (we should add : in the light of recent history of school institutions), all students are gathered in a single location (a class) with a professor providing a lecture face-to-face. This method is familiar to students.

According to Jacques Perriault

J. Perriault remarks that applied technologies in Humanities bear three types of communication : horizontal interindividual and interinstitutional communication, (e-mail, newsgroup); horizontal interinstitutional group-to-group communication (videotapes exchanges), vertical group-to-group communication by videoconference.
We should think that traditional university pedagogy is a one-to-many communication model, based on professor lecture, improved by interpersonal horizontal relationships during workshops.
What follows proves that this is a wrong point of view and that professor lecture as a one-to-many communication mode is a mistake.

Pedagogical triangle findings

Any pedagogical situation can be defined as triangle composed of three elements, knowledge, professor and students ; two out of three are constituted as subjects although the third one must accept the dead scat, or, if not, must act foolishly.
Terms knowledge, professors and students are to be taken in a generic sense :
- knowledge means contents, cursus, acquisitions,
- students means educated, trained, taught persons, learners, self-learners,
- professor is as well a teacher, trainer, tutor, assistant.

Subjects, the Dead and the Fool

The three axes ordered in a hierarchical manner, in a rotating mode : two axes are really subjects (one with whom a privileged relationship can be established because it cannot be a subject without another who recognises him as such). Similarly to what happens with Bridge (play cards) one of the summits plays the Deadman role, his cards are spread on the table and they make him play more than he plays. Without him being put aside, his place is assigned, defined and maintained by others.
Generally speaking, the Dead man is the one who is denied language terms and common functioning. He cannot be recognised as subject because he disturbs accepted modes of knowledge, creates situations which are managed with difficulties.
All pedagogy is articulated on privileged relationship between two of the three elements and the exclusion of the third one with whom nevertheless each of the two others should maintain contacts.
To act as a pedagogue is among knowledge, professor and students, to choose to whom is attributed the Dead man position (included tier-person).
Three processes exist : to teach (professor-knowledge axis), to train (professor-student axis), to learn (student-knowledge axis).
In the triangular relationship, the three processes are opposed : teaching model which pretends to insure knowledge transfer from the one who knows towards the one who does not know, learning model which aims at knowledge appropriation by the listener through his knowledge building process and training model which institutes trainer-trainee relationship as development axis.
Teaching : the authentic active element of pedagogical situation is the privileged relationship between teacher and his knowledge.
Training : in the process, making of the rules of the relationship teacher-student is the objective in order to integrate knowledge.
Learning : the teacher, taking the Dead man seat, means that students access knowledge directly.
These three logics are exclusive and not complementary... All process has its proper limits and the solution to these limits is in other processes. Excluded processes have limits that the chosen process can compensate.

Discussion : pedagogical triangle and institution

The pedagogical triangle is housed within a circle which represents the institution, but the relationship with this circle with the process.
As far as the school institution is concerned, there is an assimilation process between institution (school) and pedagogical process (teaching). But teaching has not always occurred at school and other forms are possible.

This institution school keeps a tense goal relationship with the training process. Training has sometimes for explicit to criticise the weight of the institutions (to allow students to become subjects). Although the institution wants to guarantee knowledge and weight its transmission so that the training process puts knowledge at distance as a dead.

Pedagogical triangle and Humanities programme

This model can help us to identify and quality the disturbance brought to Humanities. One can ask himself where are the IVT and canonic university teaching model in this scheme.
The professorial relationship is situated in the professor-knowledge axis, on the knowledge end (point X). Open distance curricula are situated on the axis which connects student to knowledge, on the student side (point Y), teachers becoming mediators.
Disturbance brought by Humanities can be analyzed in theory as a translation of the initial fixation point (pedagogical contract of professorial teaching) from X to Y.
In the real experience done in Poitiers, there is a break of contract for 2 of the students who don't find satisfactory the technopedagogic offer. A minority answers to the axis translation organized by the program designers and managers. The majority hesitates between the return to the initial point and the aimed point, by the bias of adaptative strategies. Humanities did not find in Poitiers its balance.

Towards ternary models

Most of communication models boil down to the transmitter-receiver relationship analysis : student confronted with technique, student confronted with expertise.
We think that any pedagogical communication is a group-to-group communication. Communication is a case study that can be presented under various angles : for example, TV is considered as communication of one-to-many (host towards the audience), or as organized group-to-individual communication (chain to the spectator) or organized group-to-would-be-group communication.
In that sense, the canonic teaching model is already a group (teacher and his authorized milieu)-to-group communication.
Experience gathered during the writing of this report shows us that the transmitter-receiver binary model does not describe adequately real situations. We advocate a shift from binary to ternary models. We justify it because of our certitude : linear communication model (from transmitter to receiver) is not able to describe real communication events. Of course, this model is enriched (message as supplementary element and also feedback, both sides being transmitter and receiver). But the term itself of feedback implies the pre-eminence of a transmitter. Without denying the heuristic qualities of the transmitter-receiver model, it is not fit to describe the intricacies of real situations.
A model with three terms allows a strong circularity in the thinking process. More precisely, this type of approach authorizes several angles : summit analysis, 2 summits relationship analysis, 3 summits relationships analysis with a hierarchy of the summits (one allows relationship between the others, that is to say a summit influences the relationship between the two others). The last one is never then completely excluded.

Explanation grid : the communication triangle

Pierre Schaeffer analyzes the mass media public service through the communication triangle, in fact a square shaped by 2 triangles linked by their tops, at the level of mediators group (producers and programmers). The "mediatic" triangle gathers authors, mediators and receivers. The power triangle gathers politicians and economists, professionals and mediators.

The good functioning of this mass communication model (a square remains a square) implies a balance of powers and a similarity between the relationship of authors with the political power and professionals relationship with the audience ; everyone keeps its distance.
Shaeffer shows an example of twisted square because of power confusion. It is certainly possible to apply such a scheme to the Humanities technical configuration and to show clearly disfunctioning causes (confusion between professors-administrators roles, lack of precise localisation of mediators). Student attitudes could reveal and confirm these observations.

A scheme which distributes more roles than there are actors

List of characters : friends of the DEA program, the Law Professor (Dean of Law an Social Sciences Faculty, member of the Humanities task force), his assistant, the Director of CNED audiovisual center, a technician, the Director of CNED research laboratory, his assistant, a person in charge of CNED international affairs, a person in charge of CNED IVT programmation, 2 CNED lab secretaries, professors from others universities, students present on the set, students present in the studio, audioconference moderators, a TV debate host, other universities tutors, students heard during audioconferences, students seen during videoconferences, experts and non-teaching invited persons, and off, the sweeping lady of the audiovisuel center.
Two important categories appear : the locals who are present in the room and the others at a distance. This is a group-to-group communication scheme.
The triangular scheme made by Schaeffer seems relatively appropriate. We think that we are able to separate students from teacher and from technicians/administrators. If we look closer though some actors seem to be in 2 different roles, successively or simultaneously on TV and on the phone, judges (moderators) and defensors (tutors), locals (professors) and distant persons (administrators).
This relative role confusion bears 2 consequences :
- it restricts students to a scheme based on teaching authority respect. The final account shows that finally, students have seen more faces of professors or experts (in close-up) than of fellow students ;
- it brings a horizontal interaction deficit.
We think that this role confusion brings power confusion and interferences between groups which ought to remain separated.

HUMANITIES PROJECT

WORK PACKAGE 4. Research & Evaluation

FINAL REPORT

Chapter 4

Research contributions

Effect of breakdown of pedagogic relation during a distance Training based visiophoning

Abstract: Powerful media as VTI or interactive visiophoning are currently used in distance learning. Short communication breakdowns are perceived as long interruption. Experiment confirms that persons taught through interactive visiophoning overestimate communication breakdown with a duration shorter than 12 seconds.

Synchronous communications as disturbing element of a university curriculum

Abstract: Selection process is at work during interactive video-transmissions: language barrier and strong personal involvement are two obstacles that students have to overcome before participating actively. Strong personal involvement means that students have to explore their relationship to knowledge and expertise before getting involved in this technical configuration where they are requested to interact through a communication model they are not used in school. They are more or less frustrated because they expected to gain some knowledge where they are asked to show some capabilities in direct exchanges. Hybridation between teaching and communication models is still to come to fruition.

Humanities Internet mail exchange has been unsatisfactory

Abstract: the relative failure of Internet use within the project can be explained by the too short learning period for new commerce (mainly students) and by the assumption made by the organisers that exchange needs can be satisfied through the web.

Time perception : The effect of the breakdown of the pedagogic relation during a distance training based on visiophoning

MISSERI Maxime, HARROUARD Fabienne,

FUALDES Véronique, DUMONT Dominique

1. Introduction

Distance learning requires more and more powerful media as V.T.I. (Interactive Video Transmission) and visiophoning mixed with cooperative work. In V.T.I. courses are delivered through the television and students can exchange with the teacher through the fax and telephone. With visiophoning and cooperative work, students can directly question their teachers, write on an electronic white boards, share electronic learning material. The better interactivity is between the teacher and students, the stronger is the pedagogic relationship. The pedagogic relationship is better in visiophoning than in V.T.I.. Jaureguiberry [1] calls the powerful communication introduced by visiophoning the "magnet effect".

Over a period of five years, we have observed more than 2,000 learners who made exercises related to a commercial course with the help of a distance teacher. We have noticed that even the communication was quickly restored after a breakdown due to a technical incident learners still perceive it as a long disconnection. Jaureguiberry[1] observed something similar in 1989 when he wrote *"it is not possible to stop too suddenly a video conference as you could do with a telephone call"*. It appears that the frustration is high after the breakdown of a powerful communication between distant persons and the perception of time is modified. This last issue was the object of our work.

For Frances[2] the perception is *"that the person hears and sees of what you show him"*. Always from the same author we can classify perception behaviour in five categories :

- detection
- identification
- discrimination
- differential distinction
- estimation

Estimation of a empty temporal interval after a breakdown of a powerful pedagogic relationship has been chosen to verify if the perception of time is modified.

Hicks[3] et al (1976) listed the following factors as influencing the time estimation : 1) method of time estimation, 2)duration of the interval to estimate, 3) the nature of processing required of the subject during the interval to be estimated, 4) the nature of the test paradigm.

Time estimation is a cognitive process. Zakay[4] 1992 resumed the different approaches which try to explain this process.

The memory approach is based on the notion that information stored in memory serves as the basis for time estimation [5,6,7,].

The contextual change approach asserts that duration estimates are correlated with the amount of change in cognitive context or with the type of information processing performed during an interval [8,9,10,11]

The attentional approach states that a cognitive timer exists which counts subjective time units [12,13,14,15]

The contingency approach states that different factors contingent the estimation of time for Zakay 1990 the nature of the time estimation paradigm is the most important. In prospective paradigm, the persons who participate to the experiment know that they have to estimate time. The attention of the person is allocated to the cognitive timer. The content of the cognitive time processor, being focus of attention, can serve as a relevant source of information for the time estimation. With retrospective paradigm where persons know that they have to estimate a time interval only after the time elapsed, time estimation seems based on information stored in memory.

Generally small time intervals are overestimated and larger underestimated[19]. The estimation depends on the subject age. Youngsters are more precise[11] as from sixteen years old. The estimation of empty intervals are longer than filled intervals[11].

2 Experiment

In research, four major methods are used to estimate time intervals [16,17]

- Verbal estimation
- time production
- reproduction of time
- comparison of two intervals

Reproduction is considered to be more accurate and reliable than production and verbal estimation. Fraisse suggests to use verbal estimation[11] when we are not interested in the absolute value of the estimation but when we are interested in the relative value. Our purpose is not to find the cognitive process of perception of time but to know if the breakdown of a powerful pedagogic relationship bring about a modification of the perception of time. This is why we have chose verbal estimation of interval. We took also into account methodological checklist of Zakay 1990 to design the Experiment.

The subjects are five males and five females, with age range 25 to 40 who volunteered to participate in the experiment.

The subjects knew that they have to estimate empty duration (prospective paradigm) in three different test.

Three hundred time estimations made in three tests as the following :

Test 1

Subjects were asked to estimate a sequence of ten empty duration of 5",12",15" and 22". with no events between each measurement

Test 2

Subjects were asked to estimate duration of ten breakdowns of communication which occurred at random during a conversation with the experimenter through a visiophone. During each breakdown, the subjects performed no task. It was an empty time. The breakdowns lasted 5", 12", 15" and 22" but the sequence was different than in test 1.

Test 3

Subject were asked to estimate duration of ten breakdowns of communication which occurred at random during courses and exercises delivered at distance by the experimenter. Visiophone and cooperative work were used to deliver the course at distance. The matter of the course was "on the use of solvents". The electronic learning materiel used for the cooperative work was a software "The solvent without risks". The Duration of the breakdowns were similar to test 2 but the sequence was different.

Two pentium PCs and two kit Proshare allowed visiophoning and cooperative work through ISDN.

3 Results

Most of the subjects overestimate the time
Average of the differences between real time and the verbal estimations is + 12.43".

duration of empty time	average for three tests
5"	+12"(7.02")
12"	+22.89"(17.61")
15"	+29.97"(18.38")
22"	+37.97"(21.92")

The average of differences are high four subject highly overestimate the time.
The major results are : for short time (5s) most of the subjects (9/10) gave a time superior in test 3' than in test 1 (fig1); the number of subjects decreases with the duration of the empty time intervals; for intervals of 15" and 22" the number is equal in test 2 and in test 3.

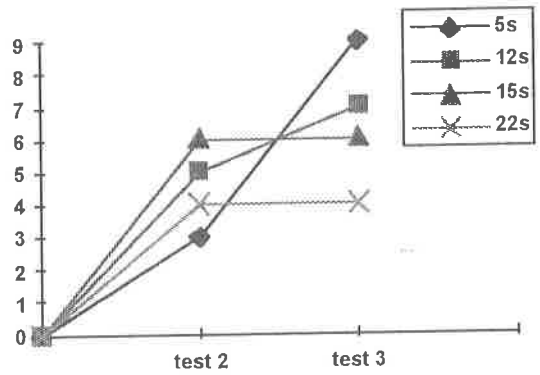

fig 1 number of persons who have an average of verbal estimation superior in the test 2 and in the test 3 than in the test 1

3.1 trend of verbal estimation for time interval of 5"

In fig.2 differences between average of verbal estimation and real time are represented per subject. Three subjects highly overestimate time. The trend of the curve is similar with a flat slope between test 1 and test 2 and a positive slope between test 2 and test 3, except for one subject.

for interval of 5"	TEST 1	TEST 2	TEST 3
subject 1	5.5"(1.5)	6.5"(1.5)	10
subject 2	6"(1)	8"(0)	9.5"(2.5)
subject 3	7.5"(2.5)	7.5"(2.5)	20"(0)
subject 4	6.5"(0.5)	6.5"(0.5)	14.5"(1.5)
subject 5	22.5"(2.5)	22.5"(2.5)	32.5"(2.5)
subject 6	5"(0)	4.5"(0.5)	7.5"(2.5)
subject 7	20"(10)	15"(5)	25"(5)
subject 8	3.5"(0.5)	4.5"(0.5)	8"(0)
subject 9	25"(2.5)	17.5"(2.5)	25"(10)
subject 10	7.5"(2)	9.5"(3.5)	13"(5)

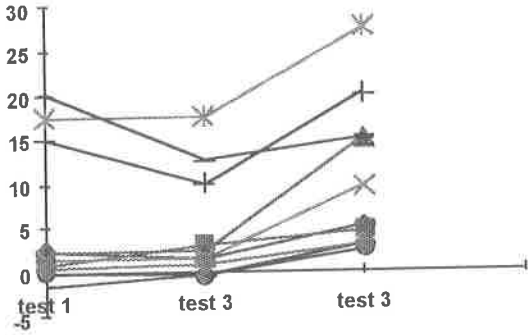

fig 2 For intervals of 5" difference between average of verbal time estimation and real time for test 1, test 2 and test 3.

3.2 trend of verbal estimation for time interval of 12"

Four subjects (fig.3) highly overestimate the time. For both of them curves between test 2 and test 3 have a steep slope. Most of the curves follow a flatter trend than in estimation of time intervals of 5".

for interval of 12"	TEST 1	TEST 2	TEST 3
subject 1	11.75"(1)	14.25"(0.75)	22"(0)
subject 2	13"(2)	16.25"(2)	13.75"(1)
subject 3	45"(15)	35"(15)	18.75"(6.25)
subject 4	14"(0)	14.25"(2.25)	24.5"(3.5)
subject 5	37.5"(5)	38,75"(3,75)	42,5"(5)
subject 6	9.75"(0,25)	11"(1)	14,25"(0.75)
subject 7	32.5"(7.5)	32.5(10)	37.5"(7,5)
subject 8	9"(0.5)	8.5"(2)	12"(6)
subject 9	46.25"(10)	42.5"(5)	35"(7.5)
subject 10	13.5"(0.5)	9"(0,5)	10,25(1.25)

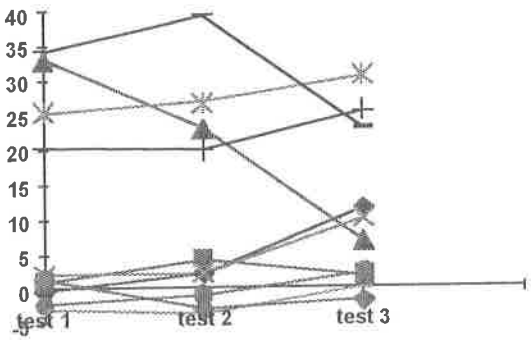

fig 3 For intervals of 12" difference between average of verbal time estimation and real time for test 1, test 2 and test 3.

3.3 trend of verbal estimation for time interval of 15"

The results are similar than for estimation of time interval of 12"

for interval of 5"	TEST 1	TEST 2	TEST 3
subject 1	17.5(2.5)	18.5(1.5)	22(0)
subject 2	17"(3)	17"(3)	15.5"(0,5)
subject 3	45"(15)	60"(0)	15"(5)
subject 4	16.5"(0,5)	17.5"(0,5)	22.5"(2.5)
subject 5	50"(10)	47,5"(12.5)	55"(15)
subject 6	13.5"(0,5)	15 (0)	17.5"(2.5)
subject 7	40"(10)	35"(5)	45"(15)
subject 8	9,5"(0,5)	13"(1)	17.5"(2.5)
subject 9	97.5"(7.5)	82.5 (22.5)	65"(17.5)
subject 10	20"(7.5)	13.5(4)	9"(6)

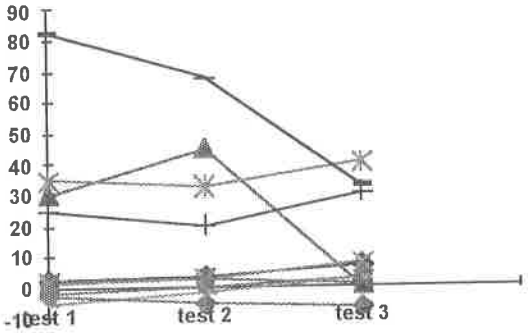

fig 4 For intervals of 15" difference between average of verbal time estimation and real time for test 1, test 2 and test 3.

3.4 trend of verbal estimation for time interval of 22"

Four subjects highly overestimate the time. For three, of them curves follow a flat trend or a steep negative trend between test 1 and test 3. Other curves follow a flat trend.

for interval of 5"	TEST 1	TEST 2	TEST 3
subject 1	26"(4)	25"(0)	27.5(2.5)
subject 2	22"(1)	20"(5)	16,5"(1.5)
subject 3	75"(15)	52.5"(7.5)	25"(5)
subject 4	25"(0)	25"(0)	32.5"(2.5)
subject 5	60"(0)	50"(0)	55"(5)
subject 6	20"(0)	21.5"(3.5)	21(9)
subject 7	75"(15)	55"(55)	55"(5)
subject 8	14"(1)	18,5"(1.5)	20"(0)
subject 9	100"(20)	127.5(22.5)	60"(22.5)

subject 10	21"(7.5)	20"(7.5)	17"(6)

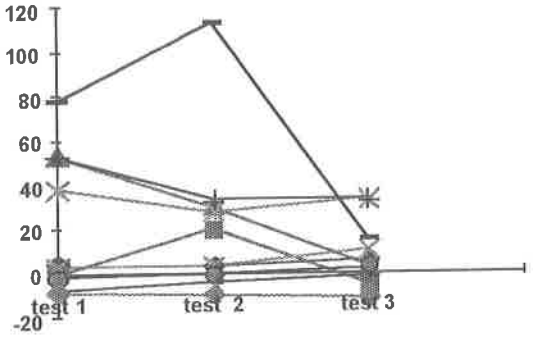

fig 4 For intervals of 22" difference between average of verbal time estimation and real time for test 1, test 2 and test 3.

4. Discussion

It appears that breakdown of pedagogic relationship modify the perception of time. It is clear for 5" time interval which are overestimated in test 3. The effect of the breakdown progressively decrease with the length of the empty time estimated by the subjects. The number of estimation which were superior in test 3 than in the two others, decline for time interval of 12", then of 15" and then of 22". The subjects who highly overestimate time are good indicators of the diminution of the effect of the breakdown. As test 3 was made at the end of the experiment, subjects made more than 20 trials when they estimated time. They were more precise, and for interval of 12", 15" and 22" they were the first who gave a time inferior than those given in the other tests.

It seems that the breakdown annoyed the subjects and they overestimate time, their own thoughts take the advantage and the effect of the breakdown blurs after 12" or 15".

5. Conclusion

Observed trends show the importance of the short time following the breakdown of a pedagogical relationship. It means that teachers who prepare distance learning have to design in advance some pedagogical activities related to the course(e.g. exercises) and that the local tutor is able to implement this activity very quickly during an accidental breakdown of communication.

6. acknowledgement

(DG XIII programme, FORCE program, Jacques PERRIAULT)

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Synchronous communications as a disturbing element of a university Curriculum

Luc JAËCKLÉ, Jacques PERRIAULT

1. Argumentation

The aim of this article is to set up a problematic of the disturbances brought by a synchronous communication device in a university curriculum.
European research on distance technologies tries to go beyond technology or management fields :
There are two scopes :
- to assess the communicational model. Perriault (1995) notices that technologies used in the Humanities programme underlie three types of communication : inter individual and inter institutional (e-mail, newsgroup) horizontal communication, inter institutional and group (exchanges by videotapes, audioconference) horizontal communication, group (visioconference, videotransmission) vertical communication.
- to evaluate the reactions of the learners. Löwick (1995) concludes the chapter 4 of its "Research Methodology Handbook with a range of non-answered questions. Most of the complementary questions focus on the behaviour of the students : feeling of the students on efficiency and functionality of distance learning environments, the way this perception influences learning strategies, how students chose between the different media, the way interactions between them and other partners, human and non human, influences learning and knowledge, etc.
Thanks to an observation of students in a situation of synchronous vertical and horizontal communication, this article focuses on the interrogation about the possibilities for hybridation between educational and communicational models.

2. Problematic

Many researches in educational technology deal with asynchronous technological device (technologies of information presentation like video programmes or computer assisted educational software). Synchronous technologies (interactive videoconferences, audioconference, visioconference) allow a simultaneous dialogue between persons; they will be probably used more and more in distance learning because of the economic conditions of their use (fall in investment and running costs). The effects of these synchronous processes are not well-known in an educational context of teaching. Nevertheless experiments are being made.
We have observed the behaviour and collected the points of view of students following an Advanced Degree in public general law in Poitiers who have participated in the environmental law demo-seminars of the Humanities programme. Universities throughout Europe received the teleconferences live and participated to exchanges. Observations on the behaviour of the students have been carried out during these demo-seminars as well as interviews. A pilot group was constituted before (students, pupils who attended interactive videotransmissions). Research hypotheses were built thanks to the observations made on this pilot group.

We suggest to describe the Humanities demo-seminars as spaces and moments :
- spaces : the demo-seminars are both in local and distant modes; there are interactions between members of the group of students, teachers and technicians who are present in the room (local) and interactions between this local group and distant groups (other Universities, broadcast studio). See the diagram of the local communication device.
- the duration is divided according to the technologies used in such or such a moment. In this article we focus especially on synchronous distance communication. See Löwick & alt., 1995, for a description of distance learning technologies. A communication technology might be synchronous or asynchronous. For instance a phone call belongs to synchronous communication whereas a mail to asynchronous communication. Synchronous means that partners communicate in real time. Asynchronous means that partners interact when they want.
The demo-seminars of the Humanities programme gather :
- TV conferences by satellite videotransmission (X)
- interactive videotransmission (Y)
- audioconference by phone (Z)
- work on documents, pre-recorded videotapes and/or written documents (T)
- preparation of the questions (U)
Communication devices which allow an exchange with few delay (e-mail, forum, fax) have sometime been used.
Our corpus of observations :
Direct observations : Luc Jaècklé and Jacques Perriault have observed the behaviour of the group during the demo-seminars. They have noticed interactions between the local group and the distant groups (local debates, involvement in the interaction slots), moving, writing down. Observations are gathered on scheduled sheets of paper. The positioning of the students is noted down on specific sheets of paper.
Dialogues : 2 face-to-face dialogue with two students at the same time, one dialogue with the teacher and the tutor, one interview by phone with the tutor to confirm some points.
Written documents : general information on students identity, their previous knowledge about technologies, their expectations..., questionnaires on students feelings right after the demo-seminars, answers given by 6 professors or tutors from other participating Universities after having received a first range of observations by e-mail or fax, drawings by the students on the communication device, content of the messages sent from Poitiers through Internet.
Video documents : tapes of TVconferences and pre-recorded broadcast.
Pilot group : questionnaire for the 13 students of "DEUG Langage, Image et Communication in Futuroscope in Poitiers; students had participated to an interactive videotransmission produced by the CNED.

3. Interest of the study subject :

Thanks to the notes we wrote we noticed the different moments devoted to each phase of the Humanities programme. There were two types of sequences :
- Video TV conference by satellite broadcast and dialogue by feedback through voice carrier (interactive video transmission), sequence XUY
- local view of pre-recorded tapes or reading of written documents and audioconferences by phone, sequence TUZ.

	X	T	U	Y	Z
	vidéotrans.	travail local	prépa/pause	VTI	audioconf.
27 nov	70		9	39	
28 nov		45	58		65
29 nov	28		20	69	

4 déc		55	62		52
5 déc		50	23		55
6 déc	69		1	39	
total	167	150	173	147	172

(the U column is heterogeneous)
- TVconference by satellite videotransmission (X)
- interactive videotransmissions (Y)
- audioconference by phone (Z)
- local work : on pre-recorded videotapes and/or written documents (T)
- prepa/pause : preparations of questions

The important place of periods of simultaneous interactions (interactive videotransmissions and audioconferences : 319 minutes over 809 minutes or 40 %) shows the relevance of these demo-seminars. These periods constitute the most important moment of these seminars. Nevertheless some characteristics of the synchronous technologies balance the effectice weight of real time communications. Moments of synchronous communication are the phases Y and Z. In the phases Y of interactive videotransmission each University is called by the broadcast studio, which will cut the communication after having called another University. In the Z phase (audioconference) partners can choose when they want to be connected, the line remains open during the whole phase. Only the audioconference allows a permanent commutativity. We estimate the real duration of synchronous communications at 172 minutes of audioconference and 3X10 minutes of effective interactive videotransmission, or 202 minutes, that is to say 25 % of the time of communication.

4. Building the hypotheses : the student model

We built a model of a student who is in situation of synchronous communication.

4.1 Observations of the pilot group :

Observations of the pilot group have shown the importance of individual factors. The group was constituted by 13 students in "DEUG. They had to answer a questionnaire after having participated in an interactive videotransmission about the UNESCO. The questionnaires reveal the following model of student (figures indicate the % of "yes in the answers) : difficult to understand (0 %), the conference was not too theorical (0 %), the topic was clear and well-defined (84 %), willing to participate in other interactive videotransmissions (92 %), enough information and preliminary documents were delivered (92 %), intention to use what was learnt (92 %), questions were prepared (92 %) but the ones the students were interested in could not not have been asked (30 %), did not pay attention to the whole broadcast (38 %), feeling of participating in an important event (53 %), the IVT did not seem to long (8 %), the IVT would hardly take part within the cursus (46 %), but it adds something to it (92 %), knowledge of audiovisual device (84 %) and more motivation to interact with experts (77 %).

4.2 Interpretations

For the students of the pilot group :
- interactive videotransmissions represent a media to legitimate work : the content is accessible and useful afterwards, they motivate students to exchange with experts, students are willing to participate in other IVT.
- IVT seem not to be well-recognized as a pedagogical medium : they don't seem to take part into the cursus, students need an important preliminary work, one does not learn more in the IVT than at school or at home, but one learn something different.

- IVT have effects on the attention : students do not pay a constant attention eventhough the IVT is not too long.
- IVT generate an important frustration : it is not easy to ask the question they want to ask.
- Other preliminary observations on pupils confirm this set of themes although the answers reveal differences of sensibility (pupils from secondary school are more critical and feel more frustrated), differences of maturity (pupils can not answer all the questions and make a confusion between the content and the medium), differences in apprehending knowledge (pupils never pretend to learn more by the mean of IVT, while students do).

We can build hypotheses concerning the knowledge approach, the attention, the frustration, that is to say the individual reactions. But educational technologies generate also disturbing effects on the class-group. The device is not neutral. It has effects on the group organization and on the integration within the cursus. Every technology generates audience selections structural effects (Perriault, 1989).

4.3 The hypotheses

The effects expected during the demo-seminars are the following :
- a public selection : the use of the distance synchronous communication device (interactive videoconferences and audioconference) generates a structural disturbance on the group.
- on the attention : increasing or decreasing
- on the knowledge approach : We draw the hypothesis that during the moments of synchronous communication, the knowledge is not determining. In these moments the communicational model dominates the educational one. The point is not the direct knowledge approach but the relation to the one who has the knowledge (that is to say the professor or an expert) and the relation to the technology.
- frustration : limits of the medium should generate an important frustration.

5. Observations

5.1 Effects on the group

Interactions (private conversations and participation to the debate) between students have been noted down on sheets of paper representing the place. By superimposing these sheets we can see the different interactions that is to say the distribution of the groups.
This distribution shows 3 areas in the "U formed by the tables in the room (see the diagram) :
- area A : around the microphone and the professor and tutor (round of the "U),
- area B : intermediate (legs of the "U near the round)
- area C : at the ends of the legs of the "U.

In the A area there are many interactions both in the group and with other Universities.
Only the students of the A area exchange their place because of the fixity of the microphone. None of the other students has been in relation with the other Universities. The B area is a transit area : there is the student who will ask a question, private conversations show a weak stability of the under-groups. In the C area there is a weak activity : few notes, participation in the debate in French, 5 students will devote about 30 minutes to the reading of the Humanities documentation.
The driving force of this effect is the place of the microphone (it can turn upon its stand and will stay at the same place) and its use. The tutor anticipated this effect by suuggesting to the more fluent in English to sit close to the microphone.
Two students told us (during an interview) that the group tried to reproduce precisely what happened in the first lesson of the "DEA when they took place the first time. According to

them the group is divided in two pieces, by affinities, following the lenght of the "U. In fact the most active student (who is more often in front of the microphone) will face a dilemna : to be close to the microphone or to his friends. He will chose the first possibility. He is then on the same row as the professor and the tutor which separates him from the students row with which he has the more affinities.
According to students (and in conformity with the anticipation of the tutor) the deciding factor in the split of the group will be the language barrier. Contrary to what happened in other Universities students from Poitiers were not chosen according to their skill in English. The whole group was invited to participate. Half of the students pretend to have an average level in English, 31% declare to be fluent, 12.5% tell us they do not understand English and one of them did not answer.
We asked the professors and tutors from other Universities on that point. Concerning the effects induced by the use of English, the point of view of the 4 Universities over the 6 which ansewered is that students were able to uderstand the conferences and debates without any problem. But comments («since the beginning, the linguistic skill excluded some of our best students from participating for instance) confirm clearly the effect of exclusion towards the students who are not fluent enough in English. This effect is sometimes anticipated, the selection is therefore on this skill. Some Universities integrated the constraint imposed by the programme management.

5.2 Frustration effect

We asked the students (after the demo-seminars of the 27 and 29 of November) to tell us wether they had prepared some questions (on their own or with other students) and if they could have asked the question they were interested in. We collected 32 triads of answers which create an indicator of the frustration generated by the moments of synchronous communication.
63% of the cases can be qualified as situation of indifference : the question which interested the student was not asked even though he did not prepared any... 9% of the students asked the question they prepared and they were interested in. Some students (9%) who did not prepare any question were quite satisfied to get the answers to the questions they asked themselves during the IVT.
19% of the students (the frustrated ones) had prepared one question which was not asked. 4 of the situations (over 6) concern students involved in the debate. The most involved student declares that twice he could not ask the question he was interested in.
On the whole, TVconferences have generated in Poitiers 19% of satisfaction, 19% of frustration, and 63% of indifference concerning the debate which is the heart of the Humanities programme. The most motivated students are also the most frustrated ones.
These figures are to be linked with the ones of the pilot group. 92% of the students belonging to the pilot group had prepared questions but only 30% have had an answer to their question. The dissatisfaction rate could be 62% (92-30) in the pilot group and 19% for the Humanities students.This relative satisfaction within the Humanities students is at the price of lack of concern even if this indifference comes from the fact that all the students do not have the linguistic skill.
The hypothesis of an important frustration generated by the limits of the communicatio device does not fit to our observations. We understand that no outlet was necessary. At the time of the demo-seminars the law faculty of Poitiers did not have Internet facilities neither by Renater nor by independent modems. The researchers suggest on the 28 of November to act as a mediator. Our goal is to assess the frustration usually generated by the use of a medium. We think that Internet could represent an outlet. But only two messages will be sent : the first one deals with law and the second permits a student to get some contacts for her report of "DEA

(the topic is not in relation with environmental law but with distance technologies). The organizers of the audioconferences suggested several times to continue the debate through Internet but the students in Poitiers did not do it.

5.3 Effects on the attention

5.3.1 During a whole seminar

During the demo-seminars students of the A and B areas remain concentrated and pay good attention. Apart from some (justified) leavings before the end, one person stand out a few minutes during a demo-seminar. It is interesting to notice the similar behaviours during the videotransmissions (in real time) and during the view of the pre-recorded videotapes. In spite of the suggestions of the tutor to stop the tape, it happened only twice in 1h30. Lots of exchanges happened in private conversations.
In Caen the tutor notices that the interest of the students did not decrease during the different sessions in spite of a technical intervention (during several hours) in foreign language.
Some sentences said during the interviews give some explanations : «I do not want to disturb every 30 seconds the students who understand, «we do not want to talk with each other, otherwise we lost the thread.
The attention is justified by the important respect to each other. The vigilance of the students show the willingness to understand what is going on in spite of the language barrier. Apart from the 31% of students who are fluent in English, the others try to elaborate learning strategies. During the demo-seminar of the 28 of November we noticed that students take more notes when the topics are announced. This helps the students. We tried to confirm that idea during the session of the 29 of November.
Between 4.01 pm and 4.45 pm we noticed 11 notes taken :

after the text appeared on the screen :	5 observations	8.2 students take notes
without any text on the screen :	6 observations	5.6 students take notes

When experts show written information on the screen more students take notes. The interviews reveal that students are looking for the key-words (to help them to understand the debate). Students appreciated all visual help : boxed piece of text, subheadings, pictures.

5.3.2 During the phases of synchronous communication

5.3.2.1 observations

The synchronous communication phases coincide with the great attention of the students who participate in the debate with the other Universities.
During slots of interactivity (phase YZ) and during their preparation (phase U) we observe the following steadinesses :
- only 4 students will interact with the other Universities (3 of them always belonging to the A area, one belonging to the B area in one of the seminar). The effect of public selection appears here.
- The technical device obliges students to move to speak in the microphone.
- Questions are previously written on a sheet of paper which will be read.
- The preparation of the questions is under the constraint of time, which is very short agfter the TVconferences. Preliminary debate gather the 3/4 of studentsof the 3 areas including the non-anglicits which have then the opportunity to be involved in the debate. But the preparation of the questions is generally done through private conversations between the tutor or the professor and 1, 2 or 3 students.

- There is a typical curve showing the activity of the group when interactivy consists in a simple exchange : a student asks one or two questions , an expert or a professor answers. If we estimate the level of concentration as normal at the beginning of the session and during the videotransmissions, we notice an additional activity during the preparation of the questions, signs of tension (nervous shaking of the feet, restlessness) of the person who has to participate in the debate. Time seems to stopped when the student speaks, the seminars have their maximum of concentration at this moment; then students do not pay great attention to the answer of the expert. Few students take notes at this time.
- In few cases (notably on 28.11 and 5.12) the exchange is more complex. A debate takes place between 2, even 3 Universities, it becomes possibly contradictory and allows to join or quit the debate. Two students will reach this level in joining a contradictory debate without any written reference. An example to understand the tension and stakes beyond the debate on a topic : a student from Poitiers asks the question she had prepared with the help of the tutor; the expert answers very shortly and there is no real debate; this student will then appear demoralized during the rest of the seminar; during a following session, this student will get ready to ask a question; she will not have the opportunity to do it because of a lack of time. She will notice in an interview that she prefers traditional lessons. Synchronous interactivity means an important implication of people.
This effect of attention intervenes on the way the interventions of Universities are felt. We asked tutors of the other Universities to give their impression on the following statement : «the competition of the prerogatives of the involved Universities (share of speaking time) generates a tension which leads, in few cases, to an absence of the listening to the answer. Over the 6 answers, 4 of them confirm this idea and one indicates that "some questions asked by other Universities were badly received by students; the authors of these questions were analysed more as willing to show their knowledge than as looking for a clarification.
This difficulty is managed by the moderators. An implicite rule of "good conduct is being made progressively between Universities on the share of speaking time. .This share is not based on the duration of the exchange but on the number of questions allowed. The regulation determines the number of 2 questions. Every violation of this rule generate in Poitiers a deep reaction. But the speaking time management procedures are quite criticized in Poitiers and by 2 tutors.

5.3.2.2 Discussion

There are at least two aspects in the synchronous communciation, two implication levels : to get one's identity and to participate in the debate. First, existing to be able to participate and communicate to exist better and more. The fact that the town of the participants did not appear on the map generates in Caen like in Poitiers a special feeling as they were not recognized as an accepted interlocutor.
To understand what is going on during the slots of interactivity we can use an approach of Schaeffer (1972). His typology of thinking informs us on a third level : besides the dialogues relating to the subjectve situation, besides dialogues relating to knowledge, there are dialogues which refer to action.
The trilogy of speech act in a context of distance interaction would be the following one : identity (to exist) - communication (to know) - action (to be able to)
We can define an ideal case of interactive dialogue, available in distance communication : the intervention of a student shows him as an accepted interlocutor, he discusses, his intervention is an action which products something, for instan,ce a debate.
This balance is fragile since there is circularity, interelation :

- If the recognition of the identity is not asserted the participant has to face without the recognition of his peers or superiors and the effect of the speak disapears, as well as the debate on the content.
- If the intervention does not produce anything (no debate) the feeling of identity can not be reached, it is probably the case of the student we mentioned before.
- If the participant does not deal with the subject the debate should normally come to a sudden end.

The necessity for the moderators to manage fairly the debate seems then important.

5.4 Effects on the knowledge approach

5.4.1 observations

Students are not able to identify clearly the different participants. In the questionnaire of the 27 of November students state that they do not known (even his name) the participant of this session. In the questionnaire of the 29 of November only 4 students mention that they know the participant and 2 of them specify that it was the same participant as the 27 of November.
The students behaviour do not change when foreign students appear on the screen and speak (videotransmission of the 27 of November).
Before the beginning of the first seminar, we asked the students what were their expectations. Analysis of their answers (28 written propositions) give us the following information :
We used 3 words to qualify the different notions :
S knowledgeinterest in the content, the topic
T technologyinterest in the device, teaching method
R relation interest in the communication with other students, confrontation of different points of view.
Over 28 propositions, 11 deal with theoretical knowledge (S), 11 concern the experiment of the technology (T), 6 refer to the relation (R). In 6 cases over 11 technology is in relation with the notion of knowledge.
After the videoconferences and by the mean of the questionnaire of the 27 of November we asked the students what they have learnt. They have the opportunity to give their answers easily through "what did you learn concerning distance learning, "Other remarks, "Do you have any criticism. We then carry out a lexical analysis. After the first demo-seminar the words which appear more than twice : time (7 times), questions, speak short, participants, experts, students, teaching, communicate (3 times). The concrete use of the medium is first linked with time management. On the 29 of November, the most frequently used words are : knowledge, English, interesting, session, difficult, exchange. The content and the difficulty to work in English appear as the first preoccupation. The professor and tutor of the group deeply regret that conferences and debates were not enough devoted to strictly juridical points. The most active student shares this point of view whereas the feelings of tutors of the other 6 Universities are divided.

5.4.2 Discussion

Concerning the first point (expert knowledge), our observations confirm a remark of Perriault relating to the necessity of a previous status and identity determination of the distant teachers or experts.
Concerning the second point (relationship with technical devices) the expectations of students show a divided interest towards the discovery of both a topic and a technique which they nearly ignore : according to technologies, students declare having heard about audioconference, videotransmission, interactive videotransmission, Internet without having

used these techniques before. The others have never heard about it. Students get acquainted with the technical devices from a knowledge point of view, that is to say a traditional approach. They expect to learn knowledge more than participating in a new experience which involves the whole personality.
This could be interpreted as a gap between expectations (to acquire knowledge which refers to an educational model) and the first experience which leads to deal with time management or the identity of the participants (communicational model).

6. Conclusions

We studied the behaviour of an academic audience participating to interactive videoconferences and audioconferences. Observations show a two steps audience selection effect.
At first stage he communicational device negociated between the participating universities and the program management foresaw explicitly the use of english as distant communication language.
The group in Poitiers didn't wish to respect this constraint by selecting students on the basis of their language skill. 2/3 of the students had difficulties to follow the teleconferences and the distant debates.
At a second level active participation to the debates require a strong personal involvement, which put on a prominent position the weight of the identity matter, the relationship with knowledge, relationship with experts.
In a context of hybridisation between teaching and communication models the problem of how participants and moderators regulate interactions is a debatable point.
See Apollon (1995) who gives advice about the way to prepare and formulate questions during a period of interactivity.
Importance of tele-communicational model appears also through the device influence on the group structure. We think that local and distant communication devices such as microphone, telephone, tv sets, tables were not used as instruments devoted to a project. Setting of teamwork groups, setting of problem solving groups which would be the founding of a real horizontal work relationship between participating universities was not possible.
Our observations don't clearly confirm our hypothesis of the partial incapacity of the synchronous technologies to fulfil the students expectations. Selection factors are probably too strong to allow us to conclude on that point.
At an individual level, the demo seminars seem to induce a conflict between the anticipations and the actual experiences. Student expected a learning in terms of "knowing that" although synchronous communication deal with skills in terms of "how to do" and "how to be".
During an interview two students said that they didn't see any interest in pursuing with distant communication devices a relationship which started in a face to face context (like Erasmus programs). A representation conflict seems to prevent substitution presence/distance. This point is important if evidenced. It would mean that academic context is weakly propitious to a legitimating process of substitution between real time of the "communication machines (see Schaeffer and Perriault about this concept of "machines à communiquer) and lived time of the human beings. Actually the innovative hybridisation process between communication and teaching models is at a start.

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Study of exchanges by mailing lists through Internet of the Humanities programme

Hervé Dubois

The aim is to study the use of mailing lists in the Humanities programme and the use of the asynchronous communication device in addition to the synchronous communication device (interactive videotransmission) within a traditional University cursus.

A The project

This European project consisted in the creation of a forum in textual and asynchronous mode by the mean of mailing lists. Mailing lists are a functionality of electronic networks. Hannu Markannen proposed to the different groups involved in the Humanities programme (communication, literature, law) the use of these lists to enable a large group communication.
Each member of the group has followed an interactive videotransmission and is focused on the same topic throughout Europe. This means that students in each subject belonging to a group really constitutes a list. Members of each participating group have at their disposal Internet facilities which allow them to send and receive messages of the whole list.
A new way of social exchange is theoretically possible through the device : creation of discussion groups between people sharing the same interests.

B Problematic

The objective is to study what have brought the 8 mailing lists through Internet to distance learning in addition to interactive videotransmissions. We tried to assess if the use of these 2 technologies is relevant whereas they are quite different :
- the interactive videotransmission lays on the educational model : a transmitter send messages to a receiver, as a professor teaches to his pupils who can ask questions in real time. IVT works on the interactive TV mode.
- The mailing list lays on the forum model in asynchronous mode : interactions occur on a computer screen. Each student can send messages which can be read by members of the list.
Differences of the 2 communication models are important : in the first case (ITV) relations are vertical (and hierarchical) and weakly interactive since the duration of the IVT is fixed in advance (very few students can ask questions because of a lack of time and linguistic skill). In the second case relations are horizontal (students can extend the IVT by communicating with each other) and interactive since everyone can send a message at any moment which will be received by the whole list.
The list created for the project :

Hum-tutoring	contacts between tutors
Hum-chat	information exchanges
Hum-lit-general	exchanges of points of view within the literature programme
Hum-lit-content	exchanges regarding the content of the literature programme

Hum-lit-contact	contacts between students in literature
Hum-com-general	general exchanges regarding communication sciences
Hum-com-content	exchanges regarding content of the communication sciences programme
Hum-com-contact	contacts between students in communication sciences

C Results of the experiment

1. Traffic

The result of the experiment (from 28.04 to 15.07) is the following :
323 messages on the Hum tutoring list

74	hum-chat
2	hum-lit-general
0	hum-list-contact
16	hum-com-general
13	hum-com-content
17	hum-com-contact

This traffic can be considered as a failure except in the tutors list.

2 Observations of the Hum-tutoring list

The great participation of the tutors on their list has to be balanced. We notice that most of the messages in this list were sent in May : 17 messages on the first of May, 30 on the third of May, 46 on the 9th of May, 25 on the 15th of May, 26 on the 23rd of May. Their number stabilizes (between 0 and 5 messages per day between the 24 th of May and the 7th of June) and we noticed as well a peak of 15 messages which corresponds to the delivery of the Humanities reports. The peaks of numbers of messages correspond to the demo-seminars period, either to communicate the e-mail or to get information about IVT or to send questions of students which have not been asked and to react to messages like the one of Martin Mair which criticises the content of the videoconference of Umberto Eco.
Tutors have found a use to these lists: to manage IVT, to exchanges diverse information including the ones which allow to go to other communication systems in real time (IRC). Therefore tutors did not know how to develop original uses in such a short time and transmit it to their students.
We can wonder on the superimposition of technical devices which have different goals. Apparently the list does not extend the IVT and does not change into an ideas exchanges place. This list allowed tutors to get used to new devices and new forms of exchanges.

3 Observation of students

Lists have not been appropriated by students. We said before that tutors used their list to send the questions of students. In fact students have communicated with their tutors in spite of using directly their own list. On the one hand they do not feel legitimate to appropriate themselves the device, on the other hand, they prefer being in contact with a professor rather than with students (legitimating of the professor).
Students did not experiment the pedagogical possibilities of the device but preferred playful practices : to get address for holidays abroad, sentimental contacts with the willingness to turn around the use of devices of the project and to assess the limits of free speaking.

Hello I am a student from Spain called Antonio. I am intelligent and funny but I am not handsome. Please, be good Christian and call me in order to establish a wonderful

relationship. In addition to this I am very riche. Love me tender and I will spend unforgettable moment in Niza, where is my summer mansion. Antonio. Write me soon or I will die.
These results lead to build hypotheses regarding the weak use of mailing lists.

D hypotheses

1 Lists access

We wonder if students had a free and permanent access to Internet facilities. A free and easy access (it was the case) is not sufficient for becoming familiar with a new communicational practice. The use of the device is closely linked with its cultural and symbolic appropriation. Accessibility to the lists is conditioned by the training to their use done by tutors. The weak involvement of students in the experiment show that they did not received enough training. But this hypothesis is not relevant since students in communication did not use more the mailing lists than students in literature did (even though their cursus made them used to communication device). We have to search the reasons of this failure.

2 Freedom under control

We wonder if students refused the device because they know their messages will be read. They exchange personal addresses through Internet to go out of this "public place" and be in private mode.
We could expect like in a traditional course that only some people participate and that others feel the need to communicate trough private channels.
We can imagine that students expect a moderator to watch on them, to guide them in the use of lists either by inviting them to communicate and developing ideas for the debate or by reducing wrong use and focusing students on the aim of these lists.
Nobody acted as a moderator-organizor. Many psycho-sociological studies (Anzieu) have shown the importance of the moderator in the management of a small group. These studies put the emphasis on the fact that groups have a common history, a mode of getting together and apart. This is the case for virtual groups. A group means common interests.
But even with a moderator, we can not focus students attention without having something at stake (more important than the single participation in a European programme even by using Internet facilities).

3 Necessity of something at stake and pedagogical approach

The tacit communicational model in mailing lists is in contradiction with the communicational model of the traditional educational approach (hierarchic and from the professor to the student). Lists propose a model of cooperation and sharing of impartial knowledge which is in opposition with the European educational system based on grading, control and selection. That is probably why students did not get involved in the experiment. Moreover the stake was not well defined at the beginning regarding pedagogy and grading in the cursus, as a tutor said :

Right now I've got the feeling that if things don't change rapidly towards more interesting lectures and a planing that makes it possible for us to partipating, I will very soon be the only one attending the lectures and that's probably because I'm getting paid. The student will prefer their exams, their boy/girlfriend and the nice weather, and I can't blame them.

We know that students have a matter-of-fact approach of their studies and they did not see the interest in participating in another model of knowledge exchanges. This can be explained by

the fact that students are in a traditional pedagogic approach. These practices change slowly and as far as people do not see the interest of new technologies, they will not change anything (especially as no stake supports interests). A claim from a student summarises quite well this idea :

Dearest Humanities students and tutors. We are the students of Communication Science of the University of Siena and we'd like to put a question to everybody involved in the project. Well, we would really like to know which are the placements in the companies as provided by the Humanities projects. This because, as of today, we still have not received any news about it. For those of you that want to help us we can say that we are interested in : TV STATIONS, INTERNET SERVICE PROVIDERS, RECORD COMPANIES, NEWSPAPERS etc. We wait for your answer as soon as possible. P.S. : Didn't you note some LACK OF ORGANISATION in this project ??? CIAO...

4 Duration and time space

One of the success condition of such an experiment lies in 2 elements : duration and time approach which are generated by the technological devices of the programme.
A period of one month and a half is not sufficient to make students understand stakes and social effects. Time is too short to get used to technologies and to change learning practices.
Moreover Humanities superimposes 2 time-spaces : one is in real time (IVT), the second in asynchronous mode (mailing lists). The management of these two elements did not work. Asynchronous mode doesn't extend the synchronous one. This is the problem of time approach.
In IVT students can manage their time as they want : 2 hours time of IVT are like 2 hours of a traditional lesson. But using lists means much more involvement for students (and tutors) : they have to prepare their intervention (means a great interest towards the topic, linguistic skill and to feel authorised to speak up). This takes time (sending the message through Internet, coming several time to collect the answers, continuing the debate). They have to enter into a postal mode scheme with one or two persons of the list, in open view of everyone.
Asynchronous communication requires an involvement in the duration. To make information exchanges creating and living we need to enforce life conditions of this space.

Conclusion

This failure shows that the introduction of technical devices do not change practices as long as the interest of being used to them is not superior to the interest of ignoring them. The usefulness of a technology can only appear after a long time (need to practice it and discover its interest). The success of mailing lists all over the world proves it.
Another question arises : isn't it that the multiplication of technical mediations is thought out of reality? Every technical innovation must take into account social and cultural practices which are modified. We have noticed a gap (regarding technologies approach) between countries from Northern Europe and the ones from Southern Europe. Technological device belongs to the culture of North, Internet comes from an anglo-saxon culture. To succeed, technical innovation must fit to specific needs in people's head.
So the failure of mailing lists does not question potentialities and relevance but the way experiments have been done; they did not take into account social realities but technical problems.

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HUMANITIES PROJECT

WORK PACKAGE 4. Research & Evaluation

FINAL REPORT

Chapter 5

Conclusion

Abstract:

Research contribution appears limited but substantial. Communication theories are relevant to many aspects of the demo-seminars. Issues to be revisited are about frustration, attention and interaction between learning and communication activities.

To improve performances of hybrid teaching and learning systems more attention should be devoted to problems of time and rhythm management both for teachers and students.

The contribution of research to the HUMANITIES Program appears as limited but substantial. More indeed was not to be waited in a so short period of time (about one year). Even if more limited in its ambitions, research may enforce evaluation. Evaluation is a global process of measure which is internal to a given action. At the contrary, research selects problems and objects which seem a priori relevant to existing interrogations, discussions and controversies in a given scientific field. Its object is to acquire knowledge on existing activities. So its results enforces some ones produced by the evaluation process when they are converging. The evaluators have to make benefit of that.
For reasons which have been explicited before, the set of works presented here have not paid attention to the contents of the demo-seminars. So it has no sense to refer to models dealing mainly with learning and teaching activities. At the opposite, it was interesting to enter into communication theories, because many aspects of the demo-seminars project were relevant to this theoretical framework. As a matter of fact this approach has revealed fruitful. In this final conclusion, we would like to come back on the main results of our investigations and to make some suggestions for the future of this kind of knowledge communication at distance. The issues which have to be revisited are the question of frustration, the question of attention and the interactions for a subject (student) between learning activities and communication ones.

5.1 - a frustration effect.

This effect has been observed also in other situations. But a deeper analysis shows that this phenomena has not the prior importance which mainly teachers allow to it, according to our experience. The really frustrated students are these ones who have prepared a question, which has not been transmitted (19 % of cases). Frustration corresponds to very active students which have been deceived. In that way, frustration appears as a negative indicator of attempts and motivations.
More difficult is the case of people who appear as "not concerned" (63 %). They say, the issue in which they are interested was not handled. But the reality is elsewhere. The problem is analogous to that one which is encountered in the study of mass-media audiences. A given TV program does not satisfy the whole public for various reasons (content, presentation, etc.). We have to take care of that and to look at the solutions that educational channels as BBC Further Education or "La Cinquième", for instance, have elaborated to minimize this effect and to lead the majority of the public to feel concerned.

5.2 - an effect on attention

Our investigation stated that even the "non concerned" people paid very much attention to the broadcast. All the observers notice that high attention was accorded to the transmission. Two major reasons appear. A first one is relational. Some students say that they don't want to disturb the group from following the demo-seminar. But many others are writing when hearing, mainly when texts appear on the screen.
Peaks of attention are observable when a member of the group asks a question on real time to the panel. The attention increases during the time of collective preparation, the maximum occurs when the question has been asked. Then the attention decreases very rapidly. In some cases the answer is hardly heard.
Further investigations should give more precise indications on this phenomenon. If mastered, it could be used by the moderators of the demo-seminars as regulation tools of the global attention devoted to the broadcast.

5.3 - an effect on the relationship between subject and knowledge communication

The results concern on one hand synchronous media for knowledge communication (visio- and videoconferences) and on another hand, asynchronous communications through Internet facilities.

5.3.1. Communication through synchronous media

The students have not, for the majority of them, clearly identified on the TV monitors screens the identities and the roles of the panel members. Reversely they were very happy with a lecture given by a single expert on the screen. This type of sequence constitutes for many of them the bridge with their traditional activity of student, i.e. hearing lectures.
Students answers to enquiries show also an anxiety about the management of time during the broadcast time. As a matter of fact, there are two major discrepancies :
- the scale time is not the same as in the class-room,
- the tempo is not given by the teacher but by somebody who is very far.
We have encountered the same features in other enquiries. We can state that these two factors play an important role in the internal crisis for many students provoked to-day by the irruption of demo-seminars :
- a communication process does not run correctly when the identities of the actors are not clearly defined and perceived (Schaeffer),
- the scales of time are not the same in the teaching process and in the broadcasting one. We have already observed the role of this factor even in the use of computers in classrooms in previous studies.
It is to be suggested that these two factors have to be worked out in the future.

5.3.2. Communication through asynchronous media

Observation of the traffic on Internet in May presented the main following features :
- the tutors were mostly implied. They have mainly used this medium to prepare and to organize the demo-seminars.
- the students did not use very much this mean of communication. H. Dubois stresses the fact that students would like to use this medium much more to interact with teachers than with their colleagues. He observes also that a moderator managing each listserve would have probably enforced the traffic.
As causal hypothesis, Dubois sees also the discrepancies between the time rhythms and tempos required by the various medias which have been utilised. Asynchronous communication obliges to prepare a message, to send it and to look up many times if replies have been emitted.
This kind of time management has to be added to the two others, respectively this of class-room and that of synchronous media.

5.3.3. Problems of time harmonization and management

To conclude this study, we assess that to make better performances for hybrid teaching and learning systems, a big attention has to be devoted henceforth to problems of time and rhythm management both for teachers and for students. The main disturbance which has been put in evidence concerns the time scale and rhythms of the traditional university life. A teacher or a student facing to the introduction of distance seminars in his university life has to be prepared to reorganize significantly his agenda and his time table. The synchronous interactions have to be managed so that frustration effects should be minimized. The asynchronous mediations

suppose periods of time on the student's agenda devoted precisely to this activity. All that defines a supplementary and new activity of harmonization for teachers and tutors.
That way, the Humanities program and the research activity it has impulsed, brings a contribution to a better knowledge of hybrid systems of knowledge transfer.