

ETC Project RITE Report

Engaging Students in a True Intercultural Dialogue: Networked-Based Discourse Communities and Culture Learning in the FL Classroom

by Sébastien Dubreil **

Introduction

In this telecollaborative project between the University of Tennessee, Knoxville (UTK) and the ENSEIRB¹, learners used Internet 2 technology to engage in weekly conversations with their partners (via webcam and videoconferencing) in groups of four (two American learners and two French learners). Each group chose a cultural event and explored it through various sources (media, films, surveys, questionnaires, websites, a class blog, etc.) to identify differences and similarities in French and American cultures, not only as far as cultural practices and products are concerned but also, more importantly, with regard to perspectives (See Appendix A). At the end of the semester, all groups presented the results of their investigation in the form of a website in which they showed the nuances of the topic they chose.²

The purpose of the study was to investigate discursive practices in online environments using synchronous computer-mediated communication (CMC). At present, the majority of the existing studies have been conducted on asynchronous CMC (fora, discussion boards, e-mail exchanges) or text-based CMC (chats). In all of the telecollaborative projects, researchers found that students were engaged in the learning process as they were trying to make sense of a cross-cultural reality that they were constructing. They also noted that the difficulties of cross-cultural communication go beyond the linguistic choices that students make as well as their relationship to technological use (Thorne, 2003).

These early results constitute a double invitation, (1) to further research on the dynamics at work in Electronic Learning Communities (ELCs) and (2) to palliate the paucity of studies currently existing on synchronous audiovisual media (videoconferencing and/or webcams). While this latter aspect can likely be attributed to the somewhat heavy technological setup, I would argue that this new development in this strand of research is critically important both to the understanding of learners' interaction in online communities and the impact of technology in innovative classroom settings, as well as for the promotion of intercultural dialogue and understanding.

The Project Significance

Even though there has been a nascent body of literature on discursive practices in online environments, this is to my knowledge the first project of that magnitude undertaken on ELCs driven by synchronous audiovisual media. My hope is that this pioneering project will eventually have repercussions not only on the way FL education is conducted at UTK, but also show the extent to which it presents pedagogical possibilities aligned with the model proposed by the *National Standards for Language Learning in the 21st Century* (see Appendix B). It will also put the Innovative Technology Center (ITC) on the map, as the project has already garnered interest during presentations at multiple conferences in the United States and abroad. I hope that further analyses of the results will lead to the publication of several articles as well as, perhaps, a book-length manuscript.

¹ ENSEIRB: École Normale Supérieure d'Électronique, Informatique et Radiocommunications de Bordeaux, a prestigious engineering school in France.

² See class blog at <http://talkingtogether.blogspot.com> and the websites at http://uuu.enseirb.fr/~medina/UTK_2007/

Definitions of a Few Concepts

First thought of as the fifth language skill, culture, too often, was merely viewed as information conveyed by the foreign language more than a part of the foreign language (FL) itself (Kramersch, 1993). If language is envisioned as a social practice, however, it always carries the meanings and values of a community, a social group, a culture and, as such, language always refers to something beyond itself: the cultural context (Byram, 1988). Within this perspective, one where students learn a language to *perform* it – proficiency-oriented instruction – many FL educators have reached the consensus that culture ought to constitute the core of the language curriculum (Lange, Klee, Paige, & Yershova, 2000). If culture mediates all of human experience, learning a foreign culture is also learning one's own culture (Hall, 1966). In this model, culture envisioned as discourse is, thus, a social semiotic practice (Kramersch, 2002). Within the context of FL learning, the negotiation and construction of cultural meaning and the learning of culture has to happen through the juxtaposition, comparison, and interaction between the culture of the learner (C1) and the target culture (C2) (Kramersch, 2000). Since C1 and C2 are themselves aggregated constructs of multi-faceted perceptions, these different perceptions have to be taken into account as they influence and shape each other. Learners should be encouraged to reflect on their expectations and their discovery of the C2 based on their own framework of reference (Byrnes, 1991) as acquiring cultural literacy is not so much acquiring a checklist of knowledge, as developing awareness of the relation between selfhood and otherness. Learners are seen as individual subjects and observers and they have to internalize this idea that the self is always co-authored by the Other (see Bandlamudi, 1994). Consequently, understanding does not come from the individual's own observation and knowledge construction but through human interactions (see Bakhtin, 1986; Kramersch, 1993, 2000; Vygotsky, 1978).

Within this overarching constructivist and relativistic context, Paige et al. (2000) propose the following general definition for culture learning, which will serve as the operational definition for this project:

Learning a foreign culture involves:

- a) learning about the self as a cultural being,
- b) learning about culture and its impact on human communication, behavior, and identity,
- c) culture-general learning (i.e., learning about universal, cross-cultural phenomena such as cultural adjustment),
- d) culture-specific learning (i.e., learning about a particular culture, including its language), and,
- e) learning how to learn (i.e., becoming an effective language and culture learner).

This definition suggests that culture learning is a developmental process toward what Kramersch (1999) calls an intercultural stance, namely a dynamic equilibrium between two cultures in which learners have to reconsider and readjust their postures constantly in view of new interactions with the foreign culture.

The increasing availability of technology, and in particular computers, in the field of FL education has led researchers to investigate how FL programs could benefit from Technology-Enhanced Language Learning (TELL) and could adapt these constructivist theories. Papert (1991) coined the term constructionism, a theory that adds to constructivism the idea that learners construct knowledge more effectively if they engage in actually constructing products meaningful to themselves and others around them. In its current state, the new technological media that are at students' disposal have the potential not only to provide effective mediation between learners and information, but also, and perhaps more importantly, to provide opportunities for learners to become the authors and constructors of their own meaning in a

collaborative effort. It is in those terms that one should understand Bass' (2000) idea of cognitive apprenticeship. He identifies three effective educational uses of technology: inquiry-based learning (i.e., the exploration of sources in multimedia environments), communication (i.e., building learning communities through online interactions), and constructionism. A cognitive apprenticeship is articulated around three core principles: slowing down the learning experience, making thinking visible, and creating a culture of reflexive practices

In the current project, learners will use the Internet as a space conducive to the creation of virtual communities of learners, what Kern and Warschauer (2000) call "networked-based discourse communities" or electronic learning community (ELC). Most FL telecollaborative projects have been inspired by the Cultura project (Furstenberg et al., 2001 – See <http://web.mit.edu/French/culturaNEH/>), which is designed to allow learners to construct the ever-evolving context within which the semester instruction takes place. Learners are not only creating their own meaning/understanding of the target culture, they are also, in part, authoring the curriculum or the educational material that will allow them to do so by participating in the creation of the semantic building blocks that will serve as the basis for intercultural exploration.

In the current project, the use of technology will be manifold as learners turn into ethnographers. Ethnography focuses on the qualitative description of human and social phenomena. It is an appropriate research methodology within this constructivist and relativistic context since ethnography tends to adopt a holistic approach to phenomena that cannot be easily isolated from each other. Using technological media, learners will collect information and documents as well as conduct observations and interviews. From the interaction between the various sources, the task of interpretation yields meaning or at least hypotheses that can later be confirmed or abandoned. Ethnography, additionally, becomes a more powerful method of interpretation as time passes. The more time is spent interacting with the target culture, the finer the analysis is and the greater its explicating power. Ethnographers, finally, keep journals with their field notes. Writing journals can be an effective source of cultural exploration for learners. They are also an effective technique to have learners reflect on what they have discovered and how it affects them as the project can – and probably will – challenge their values and beliefs (see Saville-Troike, 2000). Electronic journals can be either posted in online course management systems (e.g., Blackboard) and kept private between the teacher and each student or e-mailed to the teacher.

Purpose of the Study and Methodology

From the point of view of the teacher, the purpose of this project was to establish the conditions of possibility of a true intercultural dialogue by facilitating the interactions between learners of different cultures around a common goal (the exploration of cultures), in other words establishing an online community of practice.

From the point of view of the researcher, the purpose of the project was twofold: first to examine the dynamics at work in synchronous ELC as a learning environment by focusing on issues of process, community formation, and trajectory; second, to gain a better understanding of the kind of intercultural communication and intercultural learning that takes place in such an environment. In other words I proposed to study (1) the structure of the online learning community (class and/or group) through their roles (which are they?, who assigns them?, for what purpose?, do they shift?, etc.), the kind of verbal and nonverbal communication (linguistic and paralinguistic cues), as well as (2) the evidence of intercultural learning that was taking place throughout the semester as "measured" by multiple data sources from the learners themselves.

To achieve this purpose, I set out to use a mixed methodology combining quantitative and qualitative data. The quantitative side was based on a within-subject repeated-measure model using a pretest-posttest to measure learners' attitudes toward culture in general (intercultural sensitivity), French culture in particular. It will most likely be analyzed using a paired-sample t-test or an Analysis of Variance (ANOVA).

The qualitative side uses a wide variety of documents in an attempt to constitute a chain of evidence to support the effectiveness of ELC environments to teach culture in a FL program. These documents included questionnaires pertaining to students' experience in the class as learners and as group members; weekly learner journals encouraging self-reflection on their experiences vis-à-vis the material that they were learning and exploring, as well as vis-à-vis their dialogue with their partners; the class blog³, used as a common space to exchange materials, post photos for the photo exchange, collaborate on group projects, etc.; the websites constructed by each group to present the results of their investigation; as well as individual interviews with the learners (at the end of the semester). All these documents come in support of students' work presented in a portfolio-like format evaluated in the same fashion as a qualitative inquiry proceeds. Portfolios can be a useful way of assessing learners' progress and are appropriate here for the following reasons:

- Portfolios are long-term, process-oriented projects. Applying this to teaching culture, one can easily envision semester-long projects that are thematically coherent and get at cultural information from several angles and perspectives. Portfolios use multiple sources for information. Applying this to teaching culture, one can cross-reference literature, movies, journalistic materials as multiple sources of information. Even better, in a telecollaborative project one can really get at current perspectives from youth.
- Portfolios are learner-centered. Learning culture can only be situated in the learner, or, rather, within the learner in relation to his/her own culture and the target culture. It has to go through the learner constructing meaning for himself/herself, adopting his/her own intercultural stance.
- Portfolios are inquiry based. Learning culture is always inquiry-based. Furthermore, an effective use of learning technologies is, precisely, inquiry-based (cognitive apprenticeship, Bass, 2000). It allows students to develop analytic skills, critical thinking, and research skills, such as observation and interview (see Calvino's Mr. Palomar).
- Portfolios demonstrate growth of understanding. We can use recursive tasks, self-reflective practices, and/or pre-posttest measures.

Portfolios, however, cannot be used by themselves for evaluation purposes. They need to be combined and triangulated with the other information gathered from learners over the course of the semester to provide a valid and reliable chain of evidence. In order to do so and evaluate research projects consistently, I established a list of criteria, which I communicated to the students, in which I ask questions such as:

³ With regard to the blog, I would like to point out that my initial intent was to use my UT class' Blackboard site. After discussing with the Blackboard administrators at UT, I was told that it would be possible to set up addresses for the French students to grant them access to Blackboard. However, as things moved forward, it appeared as though it was going to cost \$10 per student, for a total of \$200. Beyond the fact that my colleague did not have the budget for such an expense, I philosophically refuse to impose this surcharge on the students, especially at ENSEIRB where they have access to state-of-the-art equipment for free all year around. Such policy is especially regrettable and questionable when free solutions exist, such as creating a blog or a wiki for the class.

- Are the questionnaires or interview questions aligned with the research questions?
- Is the research methodology appropriate?
- Is the issue of researcher effect or bias explicitly addressed?
- Is there evidence that data quality is assessed?
- Are the data triangulated with documents and research effort?
- Evidence of self-reflective practice: issue of process.

These multiple documents that constitute the qualitative side of the investigation were also going to help with the in-depth analysis of the weekly webcam conversations between French and American learners. These conversations were to be recorded weekly using TechSmith Camtasia Studio, a software designed to record computer screen as well as all audio-visual signal going through the computer. All qualitative materials in the qualitative part were to be transcribed (when applicable) and coded to be analyzed using the QSR NVivo 7 software, a robust software designed to handle qualitative data, especially as regards discourse analysis.

Technological Setup and Challenges

In this section, I will discuss the technological choices that were made for this project, the rationale for these choices, and the challenges associated with the technology.

Primary Location of the Class

As previously mentioned, setting up such a project takes time and needs to be thought out carefully. In collaboration with Doug Canfield, the UTK Language Resource Coordinator, I quickly elected to schedule the class in the LRC for reasons of ease of access to the technology that the students were going to use primarily, namely computers and webcams. The LRC has at its disposal three classrooms fully equipped with over 20 computers each. The classroom for this project offered 24 PC computers, a white board, and the possibility to project a computer on a portable white screen. Being in the LRC proper also enabled quick access to technical support should anything happen during class (see the usual webcam configuration in Appendix C).

Videoconferencing Facilities

We then had one more technological aspect to arrange: videoconferencing. In this particular case, we had two classes (one at UTK, one at ENSEIRB) of 20 students each to think about. That meant two videoconferencing facilities. Luckily for ENSEIRB, they own such a venue and everyone has access to it for free, provided that the venue is available (so it has to be reserved ahead of time to insure availability on any given date). We had three class meetings scheduled (by class meetings, I mean with all 4 students present, as opposed to group meetings when students meet in their groups of four students):

1. Introduction when students met for the first time (see Appendix D)
2. Midterm for a photo exchange (see the archives on the class blog at http://talkingtogether.blogspot.com/2007_03_01_archive.html)
3. End of the semester for an object exchange⁴

⁴ The theme of the object exchange was to constitute “un grenier de mémoire” (lit., an “attic of memory”). Students in both schools had to contribute an object that answered the following question : “If you were to select an object that represented life at (UTK/ENSEIRB) in 2007, what would it be?” Students picked objects for their respective schools. The objects were placed in two boxes that crossed the ocean and we opened simultaneously on April 26.

Although the class normally calls for a fourth class meeting (for the final exam), a conflict schedule between the two schools prevented us to hold the exam simultaneously. The school year ends much sooner at UTK than it does at ENSEIRB and the French students are doing an internship at the time exam week takes place at UTK.

With respect to videoconferencing facilities, UTK is not as forthcoming as ENSEIRB. Although the facilities do exist, they are unfortunately not free. The reasons are multiple and, including either financial or political, in any case, well beyond the scope of this report. The bulk of the proposed budget I submitted for the ETC grant was going to enable me, with additional help from the Department of Modern Foreign Languages and Literatures (MFL) to purchase a portable videoconferencing system that could be housed in the LRC. Unfortunately, the grant awarded did not allow us to meet the financial burden of such an expense. Luckily, the UTK Internet 2 Coordinator, Mark Hipshire, far more interested by the educational value of the project than renting out his equipment, offered me the use of his portable videoconferencing system, which we could set up in the LRC classroom where the class was to take place. After a quick test, we determine that we could not only communicate with ENSEIRB, we could also videotape the sessions for future use and research purposes. As we had solved the videoconferencing side of the project, we could turn our attention to the other technological dimensions.

Webcams and Communication Software

As previously mentioned, the students were in groups of four. Each computer was thus equipped with one webcam (able to capture both students on screen). The LRC already had webcams for all the computers in that room, which was one less expense. All that was left to do was to find a way to connect two microphone-equipped headsets. The existing headsets in the LRC had reached their expiration date and, for several of them, were malfunctioning. After trying USB-powered headsets, it was apparent that a more cost-efficient solution was to revert to more conventional headsets with two jacks (for the microphone and the headphones respectively). Since we had not used the money, as initially planned, on the videoconferencing system, we were able to reroute part of our budget toward good-quality equipment in that domain, an unexpected expense that we did not regret having to meet, given the good results that it yielded. Part of the grant money was thus used to purchase audio splitters as well as robust, high-quality Plantronics headsets (see below).



The software that I chose to establish connection is a free product from the Microsoft Research Project called Conference XP (see <http://research.microsoft.com/conferencexp/>). After attending the ITC open house in fall 2006 and meeting with Gina Phipps and Shane Colter, among others, I knew that UTK was exploring two synchronous classroom tools: Elluminate and Centra. I proceeded to test both products and although I am ready to argue in favor of their ease of use and all-encompassing functionalities (a major appeal for me), I determined that neither was usable for the purpose of this project. The two greatest strengths of Elluminate and Centra are (1) that they are easily deployed and accessible even to people who do not operate with a large bandwidth, and (2) that they display such functionalities as webcam capabilities, desktop sharing, a white board, and archiving capabilities. Their three greatest weaknesses are that (1) students cannot talk at the same time, (2) the webcam video is both small in size and pixellated, and (3) there is a lag between the audio and the video (probably due to the efforts to compress the information). Conference XP, by contrast, offers high-resolution audio and video with no lag existing between the audio and the video. In addition, students have a large screen in front of them with little to no pixellation (even in full-screen mode) and they can talk at the same time.

What rendered both Elluminate and Centra unusable and made Conference XP quite a more appealing option? As previously mentioned, the purpose of this study was to investigate the dynamics of interaction in an ELC by looking, among other things, at verbal and non-verbal communication. In order to achieve those goals, I felt that I had to be able to rely on the technology to provide as realistic an interaction as possible between learners, giving them the means of a truly embodied discourse in which they could benefit from each other's linguistic and paralinguistic cues. In other words, students had to be able to determine whether their partners were understanding or frowning in confusion, smiling or nodding, and students had to have the possibility of interrupting each other, a critical feature of conversation in French. Moreover, in Conference XP there is no moderator. Students are connecting in very much the same way they would for a phone call, or a (video)conference call in this case, since four of them are talking at the same time. In both Elluminate and Centra, students have to raise their hand to be given the turn to speak, someone has to moderate conversation, and the thumbnail-size video does not afford the necessary kinds of interaction for which I was looking. Thus, the size of the screen, the simultaneity of conversation, and the perfect alignment of the sound and the picture made Conference XP not only a much superior product, but also the only usable (and free) of these three products. This is valid for both the teaching and research side of this project as running discourse analysis on the nonverbal aspects of communication would be nearly impossible on video of the size and quality provided by Centra or Elluminate (see Appendix E).

Although Conference XP was perfectly adapted for the teaching side of the project, it uses a Voice-over-IP (VoIP), point-to-point protocol, meaning that each group has to know both their own and their partners' IP addresses in order to connect using a unicast conference (two computers) rather than a multicast conference (multiple computers). This left a margin for user error. This was countered by one of ENSEIRB's technicians, Philippe Moniez, who created a web-based algorithm that facilitated the process. All students had to do was to go to the webpage (for which Sumarni, the LRC technical staff, placed an icon on the computer desktops), select to which group they belonged, and the computer could automatically give them both IP addresses to start the call. Philippe even set up an administrator group, which allowed both Sue Médina and I to discuss various class-related issues and, most importantly, to be able to trouble shoot, should one group have a problem. After successfully testing this set up live (i.e., with all 11 machines running at the same time), our series of weekly "cyber rendez vous" was ready to start.

Camtasia Studio and the Issue of Archiving

As mentioned earlier, in order to perform discourse analysis on the webcam conversations and the videoconferencing sessions, I needed to have access to these conversations. While recording the videoconferencing sessions was easy (a VCR or DVD recorder suffices), recording the audiovisual stream coming through ten computers presented a different challenge. TechSmith's Camtasia Studio seemed to offer the answer to that challenge. Doug and I had tested the free trial version and were able to come up with workable results. Though somewhat costly, The ETC grant had offered enough money to purchase the necessary licenses. When deployed on a full scale for the purpose of the class, however, we ran into problems that we could not resolve. Recording the webcam conversations led to various problems, ranging from a lag between the audio and the video, slowing down of the video, inability to record both sides at once, audio feedback into the headsets, echo, etc. The subsequent problem that we did not have to confront would have been to store the large files that Camtasia would have given us. Another unanticipated problem was that the manipulation of the software, which proved to be too cumbersome for the students. In technology-enhanced learning, technology cannot be part of the problem. So we unfortunately had to abandon the Camtasia solution and we will search for a new solution in the future. Conference XP actually offers a built-in archiving service that we might be able to use. It does not work in the unicast mode that we have used but if we use Conference XP's venue mode (whereby students gather in pre-established venues by group), we should be able to implement this archiving feature, especially if we can configure the LRC server or Digital Media Services server to host the files.

QSR N-Vivo and the Possibility of Analysis

QSR has a long tradition of providing effective software for qualitative inquiry (e.g., QSR Nudist). This one is no exception. It allows not only the analysis of qualitative data, discourse analysis, but also the analysis of video by inserting time code, enabling the juxtaposition of the transcription and the video, and most importantly, coding. This renders retrieval of data across documents in the same project much faster than the manual counterpart. Although I won't have as many data from the webcam sessions, I will still be able to enter data from questionnaires, documents, and interviews in the software and run analyses accordingly.

Conclusion

This project was at the crossroads of teaching, research, and educational technology. Despite the challenges of setting up such a multi-faceted project, fortunately, the teaching side of the project was a resounding success. Students were motivated by the class, learned to navigate the difficulties of collaboration, negotiations, and intercultural communication to produce, in the end, high-quality work. In such projects, the technology has to be invisible and seamless. As amazing as it was to set up a room to establish weekly communication with another continent, students focus on the one moment when the technology fails. After the initial difficulties with Camtasia, it did not happen and students were able to enjoy a good educational experience. The research side of the project is the aspect that suffered and that we will hopefully be able to solve before next spring to add the important missing part of the data.

This project is also a testimony to the fact that valuable research and teaching endeavors can take place despite the inevitable obstacles that one has to face, coming from access to technology and working with technology, to financial and political considerations. It allowed me

to establish precious contacts throughout the university, to give instant visibility to culture-driven courses in the French section, to contribute to the internationalization of the curriculum and the campus (see the recommendations of the Ready for the World initiative), and, most importantly, to set up a line of research projects that will make worthy contributions to the field of TELL.

Acknowledgements

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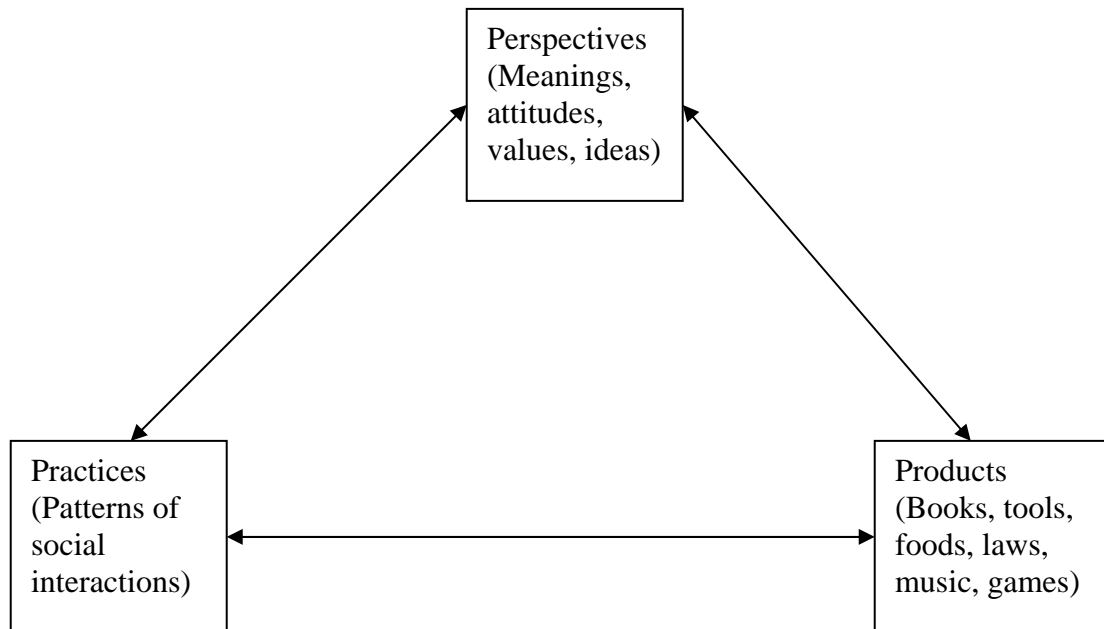
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Appendices

APPENDIX A

The National Standards Model of Culture



In 1996, the American Council on the Teaching of Foreign Languages (ACTFL) published the *National Standards for Language Learning* (revised in 1999). They specifically focused on culture and provide explicit direction for teaching culture beyond its former status as a fifth language skill. Culture is placed at the core of the FL curriculum and shapes both its forms and its content around “five C’s”: culture, comparisons, connections, communities, and communication. In place of the little “c”/big “C” dichotomy, too static and fragmented, the *Standards* propose three categories: cultural practices, products, and perspectives. In other words, the *Standards* invite learners not only to identify cultural practices and products, but also to demonstrate their understanding of the differing perspectives (meanings) underlying the practices and products. Practices consist of habits, daily life behaviors, and patterns of social interactions. Products consist of cultural achievements, as well as all tangible and intangible cultural objects (books, tools, instruments, educational or political system, etc.). Perspectives, finally, refer to meanings, values and ideas. Knowledge is in the connections rather than in the units themselves to borrow a connectionist metaphor (see the model of culture proposed by the *Standards* in Appendix B). And making connections is precisely one of the objectives of the *Standards*.

APPENDIX B

The National Standards for Language Learning – ACTFL, 1996/1999.

Communication: *(Communicate in Languages Other than English)*

Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.

Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.

Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

Cultures: *(Gain Knowledge and Understanding of Other Cultures)*

Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied.

Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.

Connections: *(Connect with Other Disciplines and Acquire Information)*

Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.

Standard 3.2: Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its cultures.

Comparisons: *(Develop Insight into the Nature of Language and Culture)*

Standard 4.1: Students demonstrate understanding of the nature of language through comparisons of the language studied and their own.

Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

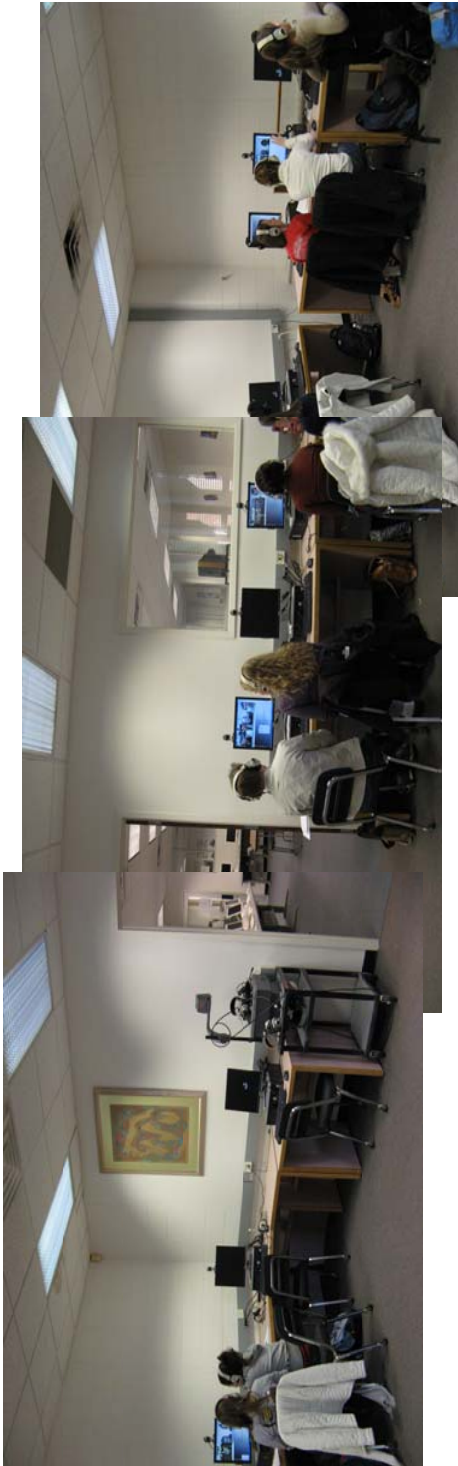
Communities: *(Participate in Multilingual Communities at Home and Around the World)*

Standard 5.1: Students use the language both within and beyond the school setting.

Standard 5.2: Students show evidence of becoming lifelong learners by using the language for personal enjoyment and enrichment.

APPENDIX C

LRC classroom in the usual webcam configuration.



APPENDIX D

Rocky Top: Excerpt from the first videoconference.

QuickTime™ and a
H.264 decompressor
are needed to see this picture.

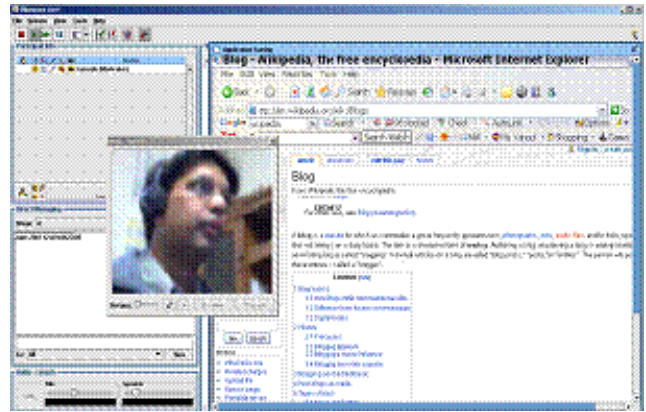
APPENDIX E

Comparison of the Centra, Elluminate, and Conference XP interfaces.

Centra interface



Elluminate interface



Conference XP interface

