Global Communications in a Graduate Course on Online Education at the University of Tsukuba

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Introduction

The purpose of this article is to report a case where global communications were realized in a Japanese classroom. From February 16-20, 2004 the author taught an intensive course at the national University of Tsukuba Graduate School of Education entitled Online Education in Theory, Practice, and Applying the Internet to English Education. Preparations and technologies in particular that made a globalized classroom possible will be described. Annotated computer screen shots of password-protected virtual learning environments will also illustrate available technologies for international communication.

Synchronous and asynchronous (not real-time) Internet voice technologies (by Wimba and HorizonLive, which merged soon afterward), integrated into WebCT learning management systems in Australia and the U.S., were accessed by the instructor and students from a typical networked computer lab in Tsukuba, Japan's Science City. Online education experts in the U.S., England, Malaysia and Brazil participated through the Internet as mentors, engaging the graduate students in audioconferences, chats and other forms of Web-based communication.

Aside from the course work described in the body of this article, the graduate students submitted a collective report in Japanese detailing the course activities and their impressions. The report in their native language, to be most authentic, is appended to this article (Appendix 3) along with the original illustrated flyer with a course description (Appendix 1). The report is also translated into English by the author in Appendix 2.

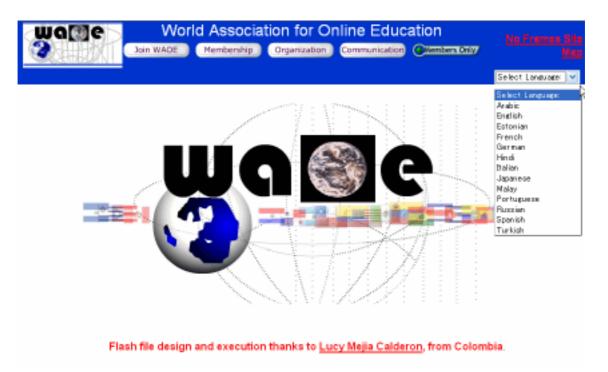
Substantive discussions of online pedagogy helped the students turn from skepticism about distance education to enthusiastic appreciation of online education. Although the real-time communications with mentors abroad in their target language was most impressive to the students, other keys resulting in the positive outcome could be discerned. Planning was necessary for Internet access throughout the course, with synchronous events involving various time zones. Having the instructor's screen always projected allowed students to easily experience new technologies. The cooperation of university staff, sustained collaboration with reliable online educators abroad, plus reliable networks and educational technologies were also vital.

Learning Management Systems and other digital technologies allow for much of the course to be preserved as research data. More can be shown to other educators, and more accountability is possible than with traditional face-to-face (f2f) courses. So in many ways including this report, the classroom has been opened to the world. Given pedagogies and technologies readily welcomed by the learners, a positive form of globalization is also assured. This article thus aims to show how certain practices of online pedagogy and educator networking make the globalized classroom already an accomplished fact.

As the course was both *on* online education and taught *utilizing* online education communication tools, the media reinforced the message. By contrast, a similar course was previously taught in a regular lecture format in the abstract, whereas hands-on experience is

essential to empower the learners with information and communication technologies (ICT). While such a course could be taught at a distance, Japanese culture privileges face relationships and solidarity rituals of everyday f2f communication. Thus the fully hybrid format was most suitable: having the instructor there throughout the course, plus a constant Internet connection for each student and opportunities for authentic interaction with informants at a distance.

While vast e-learning research has been published, and learning management systems have been widely used in Western countries, there has been little attention to non-Western cultural and linguistic contexts where the universality of the online pedagogies and technologies might be tested. Therefore, rather than appealing to authorities on educational effectiveness, what may provide the most original and revealing data is the graduate students' reflections, which show that the experience was empowering and that their learning was transformative.



WAOE home page: a non-profit organization registered in California; a virtual organization for online educator development and intercultural exchange; multilingual Websites starting at: http://waoe.org

Similar courses combining plural voice technologies and learning management systems with global involvement so intensively have scarcely been attempted in Japan and most parts of the world. The Tsukuba graduate students had hardly heard of online education before, although some of them were already schoolteachers returning for an advanced degree. Yet this report shows what is already possible through international networking among educators. The author could draw upon World Association for Online Education (WAOE) colleagues who have been collaborating reliably for continuing professional development since 1998, and WAOE has established a volunteer mentoring framework.

While Japan has the infrastructure of an advanced nation, it is rare for an English as a Foreign Language (EFL) course to be focused away from the English language itself, to include authentic encounters with mentors, to involve many countries, or for online education to be

recognized as a new discipline in the first place for it to appear in the curriculum. In Japan if not most non-Western countries, the institutional culture for EFL practitioners, which delimits the scope of pedagogical practices, has impeded experiments the infrastructure would have allowed. In any event, it was not until 2004 that this author had the opportunity to teach online education *per se* to EFL pedagogy majors and aim for the ultimate goal of actualizing the globalized classroom.

Course preparations and conditions for successful learning outcomes

There are certain necessary conditions to fulfil in planning and implementing such a course. The first set of conditions was to conduct the course in a computer lab with a terminal for each student. They were to also bring headphones with a microphone in order to engage in audioconferences and asynchronous voice technologies. Because of these, besides the Web browser and other software one would expect to be installed, special software needed to be downloaded and installed in each terminal, particularly java runtime for the voice technologies. The computer lab should be networked and connected to the Internet all the time, even though there will be offline activities. That, not necessarily distance communication, is what constitutes online education.

High-speed or broadband connections can be expected at Japanese universities, but a relatively up-to-date lab should be secured, because older system software or slow connections cannot handle conferencing systems. Indeed, WAOE mentors in rural Brazil and Malaysia, outside of the Multimedia Super Corridor around Kuala Lumpur, could access the chat functions of the virtual classroom, but even though they had java runtime installed, they could not access the voice portion of the audioconferences. Across continents the backbone and infrastructure can cause congestion as large amounts of data pass through areas of narrow bandwidth along Internet gateways.

Another condition, not so much of necessity as of optimum effectiveness, is to have a projector set up so that the instructor's computer screen is always visible to the students. When the projector is on throughout the computer-mediated activities, students can most easily perform one operation after another that they are trying for the first time. While designing the student interface is quite challenging for instructors, the student view in learning management systems is relatively easy to navigate. Most Web-based technologies are a matter of following instructions that are not as difficult as mastering most computer programs.

A high level of curiosity or interest in the content is another precondition for a successful learning outcome. The unprecedented number of the cohort signing up for the course indicated positive expectations. What they had seen beforehand was the course flyer that is appended to this article, a colorful diagram of e-learning concepts to brainstorm in class, and the course description.

Preparations included arranging to use WebCT at Portland State University (PSU) in Oregon as a course platform. PSU hosts the author's virtual organization WAOE as an international public service. It was also possible to reserve the HorizonLive Internet conferencing system or virtual classroom platform, because it allows for PowerPoint-style presentations and other functions, integrated with WebCT. In addition, the author arranged with NetSpot Pty. Ltd. in Australia to try Wimba asynchronous and synchronous voice technologies integrated with their WebCT platform in Adelaide. HorizonLive and Wimba started to merge their companies

soon after this course. According to course needs and how the instructor had perceived their strengths, HorizonLive was selected for audioconferences and mainly the voice BBS of Wimba. The Portland WebCT was to serve for chats, text discussion, course e-mail, Web documents by the instructor as the designer, and participants' home pages, including those of mentors to increase familiarity.

Furthermore, preparations included gathering the registered students' names and e-mail addresses to send to Oregon and South Australia so that students could be given user names and passwords to log into the course venues. The graduate students were also sent a message with the URL for the class home page on the open Web with links to articles and resources on online education for study before, during and after the one-week course.

The following graphic charts the various elements that were arranged for at no cost, with nearly every element working reliably as planned. To some extent it may provide a model of a global class achievable today.

Location	Venue (LMS or VLE)	Functions and App	lications			
Portland, Oregon	WebCT	Asynchronous:				
		Participants' Home Page		2015	Syllabus Calendar	
		Discussion (BBS) WebCT				WebCT Help
		Study:				
			Web pages	Links	MS Word	download
		Synchronous:				
		Chat				
Adelaide, Australia	Wimba for WebCT	Asynchronous:				
		Voice BBS		Voice e-mail		
		Synchronous:				
		Audio conference				
New York, USA	HorizonLive	Synchronous:				
		Audio conf	erence			
Tsukuba, Japan	Networked computer	Asynchronous:				
	lab (the classroom)	Web brows	sers	e-mail	MS Word	3.5 inch FD
		Synchronous:				
		F2F lectures with Q&A Discussion			ns in a circle	
Kagawa, Japan	Personal computer	Asynchronous:				
(Instructor's residence)		e-mail (before and after the course)				

Chart 1: Elements of the Online Education course

As can be seen, there are people and technologies in various venues and countries. Functions and applications listed were ones that were used in this course. They are classified as is customary in online education according to whether activities are synchronous (in real time) or not. Classroom activities are similarly classified. Toward the upper right corner the items under "Study" are not necessarily in the password-protected Portland WebCT environment but are available on the open Web, set up before the course. While the elements of the course fit together on this chart, behind each venue there were people, either learning or supporting

learning. Physical distance and the distinction between f2f and virtual venues fade in importance as the course elements link seamlessly to enhance communication.

Chronological summary of course activities

On the first day students learned various background information and computer techniques. They found that taking screen shots of Web pages to paste into their own documents was especially useful. They bookmarked the lecturer's home page as a favorite in their browsers from which they could reach the various venues such as WebCT courses in Portland, Oregon and Adelaide, South Australia. They then were oriented to the WebCT functions such as syllabus and calendar that had been set up before the course. After viewing the home pages of mentors, with WebCT they made their own home pages for the first time. Mentors also utilized the Student Homepages function to become more familiar to the graduate students. Students were asked to take photos of each other with their mobile phones and mail them to the lecturer's Web mail based in the U.S. The lecturer then passed the photo files to the students on a disk to add to their home pages, asking them to think about where the data had actually travelled, both wireless and wired, criss-crossing the Pacific Ocean almost instantaneously. The lecturer's screen was projected throughout the course, and students reported afterwards that they could easily learn new technologies one after another, including the HTML programming language editor for making home pages.

In the afternoon the students experienced the Wimba Voice Board, a BBS where their recorded voices are still archived along with their written messages. They could ask as well as answer questions, discussing their past experience and how online education could be applied to TEFL in Japan or to their future studies and work.

Later the students learned about sites on the open Web where they could practice English or do machine translations between Japanese and English, and they were amazed at what was available for free. After class as well the lecturer could help students with their individual needs.

On the second day in the morning, utilizing the WebCT Chat function, there was a real-time written discussion with the mentors abroad. Besides defining online education, its problems (compared to f2f classes) and issues when introducing it into Japan were actively discussed in writing. Students found the pace too fast at times, with a response sometimes separated from the original message, but then posters adjusted by starting to mention the name of the person to whom they were responding. The graduate students found the chat exciting to experience for the first time and thought that secondary school students in Japan would enjoy this technology while acquiring English.

In the afternoon everyone went away from the computers, formed a circle and discussed the theme of "Global Online Education" based on the lecturer's global survey results. The Tsukuba students were to look for patterns in the results, comparing various countries with Japan, on topics such as the state of the use of virtual learning environments, issues such as globalization and whether or not women were equally involved. The graduate students concluded that the introduction of online education should be discussed nationally in Japan.

On the third day in the morning there was an audioconference with several practitioners of online education abroad. There was a presentation similar to PowerPoint utilizing the HorizonLive conferencing system, and demonstrating other features such as instant polls with

the results automatically compiled in charts. The graduate students peppered the mentors with oral questions about online courses in concrete practice, their problems and solutions, benefits and future possibilities for Japan.

In the afternoon the main activity utilized the WebCT Discussion function, an electronic bulletin board system (BBS). Students added their own questions as well as answering questions in a threaded discussion with the lecturer and other participants. Questions were about online education and related concepts that had been brainstormed in the course. Students reported that with the technical terms in each question explained by the lecturer they gained a deep understanding of online education. They wrote that BBS technology is markedly more efficient that than the traditional blackboard, chalk and notebook, so it should by all means be used in mainstream educational institutions.

On the fourth day in the morning there was first an oral class discussion of the previous day's questions and answers written in the BBS, and the lecturer provided augmented explanations of the issues. Around the middle of the day the discussion continued in the Wimba Voice Board, applying new understandings to how the online education techniques the students had learned could be applied to EFL in Japan. The graduate students thought that online education might motivate students to grow as learners.

Later in the afternoon the students learned about an entirely online academic conference while visiting its Website at the University of Hawaii. Online conferences, in which the lecturer has actively participated since 1996, open up participation in academic societies to people in many countries at various occupational levels. The graduate students also learned to distinguish the open Web that is freely accessible and searchable from the password-protected Web where most online courses take place. Forming a circle offline again, students were asked what kind of virtual organization they might like to participate in. Examples included networks of EFL teachers in different regions or of fellow alumni so as not to lose contact in the future.

Students reported that the class included both theoretical and practical activities, and that there was important feedback from student-student exchanges. They reported that the lecturer brought the discussion together in the form of augmenting students' views, so the progression of the discussion was easily understandable. There were some difficult theoretical issues, they wrote, but explanations were illustrated by very helpful examples. They concluded that online education holds great potential.

On the fifth and last day there was time allotted for independent study and working on final papers that had to be evaluated the next morning before the lecturer left Tsukuba. But in mid-morning there was also a second audioconference with mentors abroad. Particularly online learning textbook author Maggie McVay-Lynch, who had conducted the earlier HorizonLive online presentation, was peppered with questions the students had accumulated during the course. Topics included the actual situation of online classes and the roles of teachers and students.

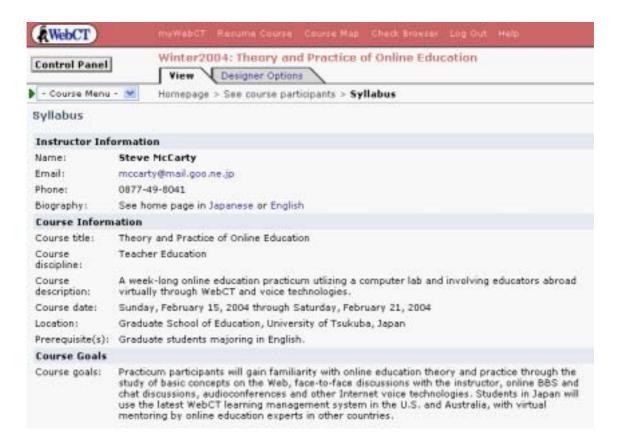
The graduate students enjoyed audioconferencing and also found it to be superb practical training in English listening and speaking. Particularly for junior and senior high school students in Japan who have hardly any opportunity to use English outside of class, online education would be a most suitable means to activate and actually use what is learned in class. The graduate students had thought that education through the Internet was something personal

and closed off from others, but they finally realized that, provided the pedagogy is sound, online education is surprisingly interactive and useful for expanding the individual's narrow world.

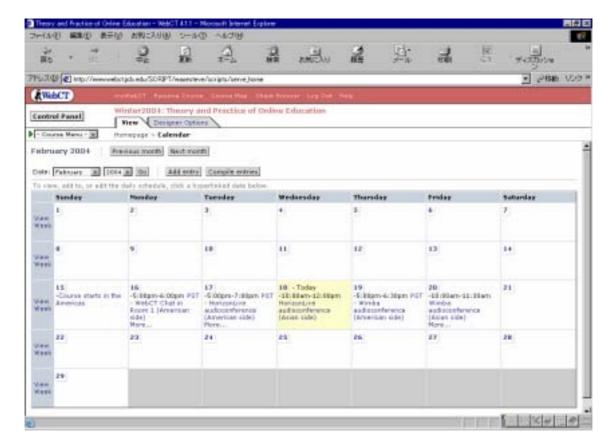
Annotated screen shots of the virtual learning environments



WebCT course home page at Portland State University (Student view or interface). The lecturer designed what students see from the Designer interface, which has a different view with access to various course tools (the CT in WebCT). The lecturer set up the bottom row of icons as organizer pages according to what participants intend to do when they log in. There are various links to click on for students to take the next step, to another page or tool (such as the interactive calendar function), or to pages outside the course on the open Web.



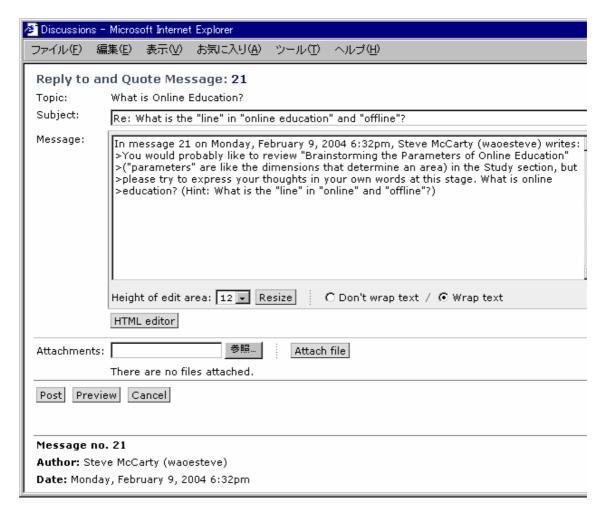
WebCT Syllabus function (Student view). The designer fills in certain fields of this tool to generate a course syllabus in this format with basic information and course goals.



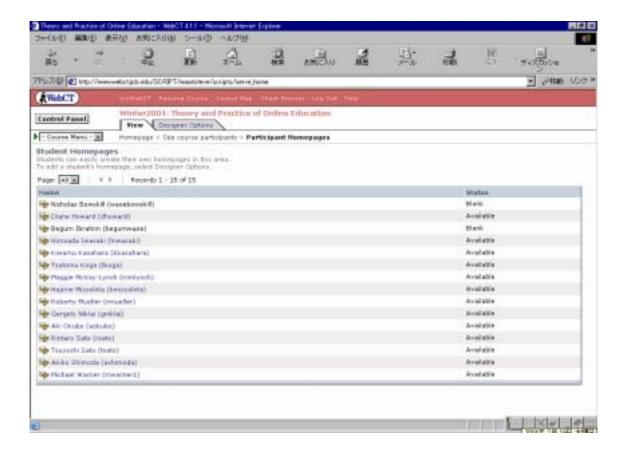
WebCT Calendar function, taking account of time zone differences. With this useful tool the designer can link days to information about the events on those days. However, the designer had to take into account that the day is different for participants in Eurasia and the Americas, so real-time events are listed spanning two calendar days.



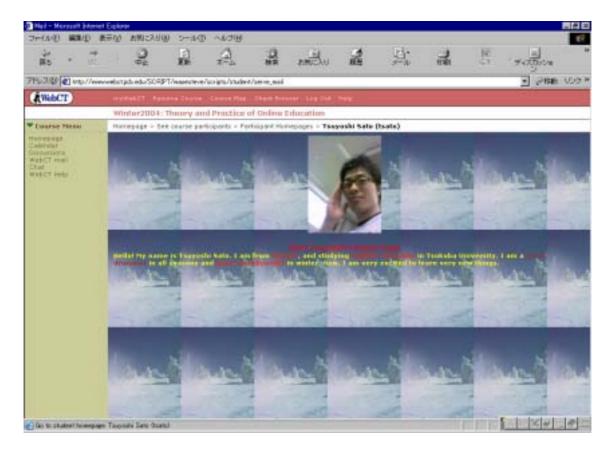
Organizer page designed for WebCT communication tools. Clicking on "Communicate" at the home page, students reach this page for communication activities within the Portland WebCT site. If participants need to interact by drawing or with illustrations, a Whiteboard function can also be added by the designer.



WebCT Discussion tool (BBS). This is how a reply message starts when using this electronic bulletin board system for threaded discussions.



Participant Homepages WebCT page showing their availability. WebCT automatically generates reports on the status of all the students and generates interactive pages like this one. Most of the mentors also made home pages using the Student Homepages function. When it is a distance course to some extent, the Student homepages help everyone get acquainted.



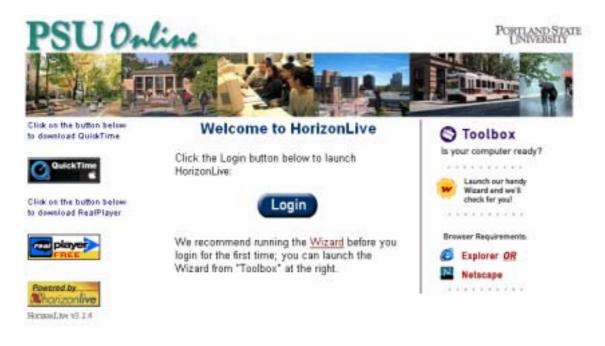
Student home page example. While graduate students reported that they each made distinct home pages, this student was the only one with past experience of a home page.



Student home page example. Another example is that of a foreign student from Budapest.

Mentor in Brazil using the Student home page function to get acquainted. Although this professor could not access the audioconferences from a rural region, his presence in the course was enhanced with this home page.

It is note to meet you, we are all earling for progress, came of you started earlier, same more recently and some will start coon. Online education leads we attend as a resource for starty themes and on EU 1999 we developed the first couple of pages in the internet, in comparison with traditional tracking with challs and hard blackband our starty environment was upgraded, online resources enable as a student to leak back or even look in advance and interest with the applications used during the class. Our multilinguit voluntary activity is extended to first posterior, by a-mail. He work is at the Chemistry Department, Universities Federal de Victoria, Plant of cerus, Brackl. Must of our online productions even presented at regional and actional resettings of the Succeded Bracklers de Quintius. My as line duble improved due to top and limits from WADE. Bott Reported. Robotts Market of the Considered of the production of the possible production interaction and your conclusion for any educational page in Telephocation. May this be considered celline advantage? What is its advantage?



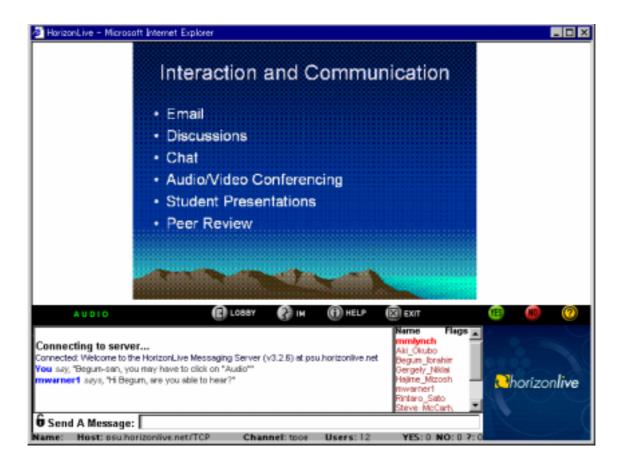
HorizonLive conferencing Login screen at Portland State University, Oregon.

Instructions can be downloaded if needed, but it is fairly simple for students to participate in a

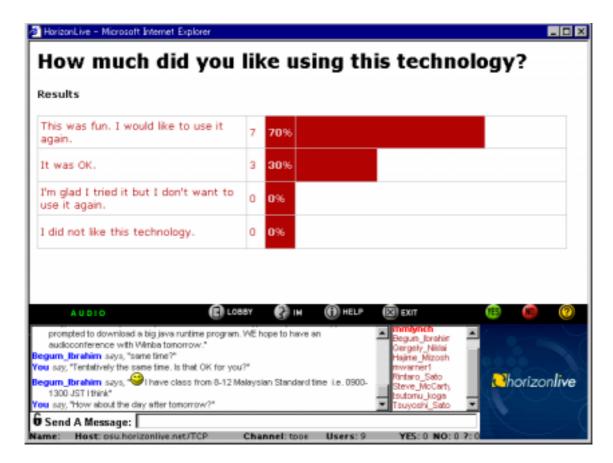
conference. Usually students are assigned a user name and password, a process similar to entering WebCT.



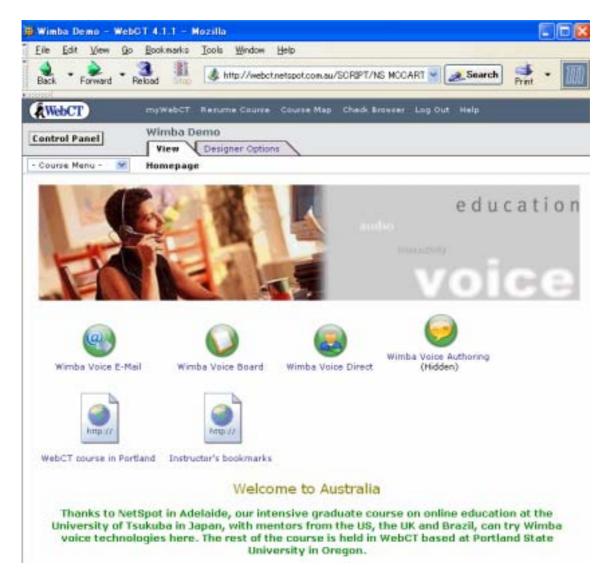
HorizonLive audioconference (Designer interface) among WAOE mentors. This screen shot was taken at a practice session among World Association for Online Education (WAOE) mentors. It shows Designer functions that students do not see, but which design what students see, such as a presentation. The students similarly see an area that looks like a mobile phone when they participate in an audioconference. The user names of people logged in appear as in a chat room. One person at a time may have the floor to speak into their microphone by pressing their computer's control key.



HorizonLive audioconference with presentation and written chat functions. This is the Student interface during an audioconference of this course using the presentation function. Participants could hear the voice of Prof. Maggie McVay-Lynch, which is indicated by her user name being highlighted. There is also a written chat function to the left, which can be useful for example to make suggestions to someone who cannot hear the audio. That was the case with the professor in Malaysia, Ms. Begum Ibrahim.



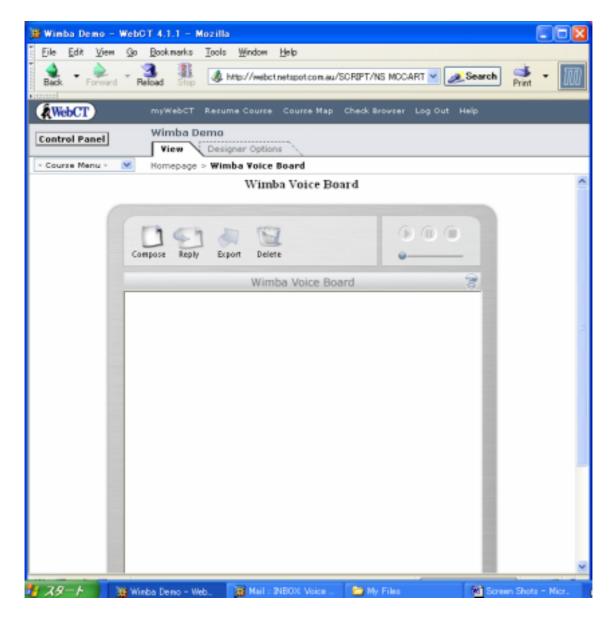
HorizonLive instant poll during a presentation. Quick feedback can be elicited from participants in real time, with yes/no answers automatically compiled or questions with results generated in the form of a graph.



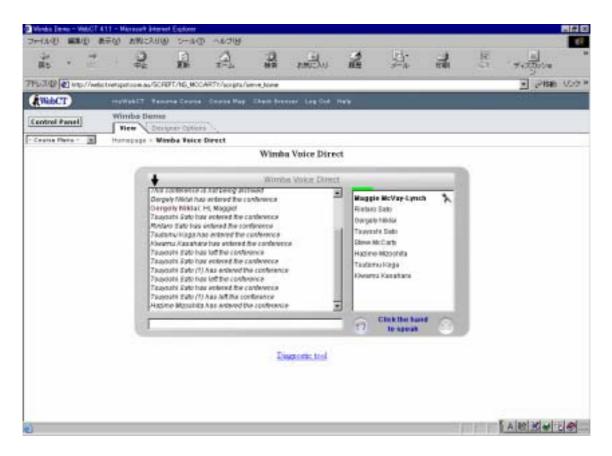
Wimba voice technologies integrated into WebCT. This is a WebCT course set up in Australia to feature the Wimba voice technologies. This designer added mostly links for the students to navigate back to the main WebCT course based in the U.S. The Wimba audioconferencing and voice e-mail functions were used, but the Voice Board was found particularly suitable for content-based English in this course on online education.



Wimba Voice Email message. This example shows an arriving message. By clicking on the link the recorded message can be heard, provided the java runtime program, which can be downloaded free of charge from the Sun Microsystems Website, is installed in the system software of the computer's hard disk. Messages can also be saved by the recipient as .wav files that can be heard with various multimedia players just by double-clicking on the file icon.



Wimba Voice BBS. After clicking on Voice Board at the home page, this form is launched, with space for a written message as well as controls to start and stop recording one's voice with a microphone. Writing a message outline first can help non-native users of English to prepare what they will say. In the case of reading and listening to someone else's message, one can click on Reply to respond to the message in writing and orally. Then the messages are threaded like any other BBS.



Wimba audioconference function including written chat. The Wimba audioconferencing function is not as impressive as that of HorizonLive, but after this course the two companies merged, combining their strengths in synchronous (HorizonLive) and asynchronous (Wimba) Internet voice technologies. For EFL, video is not so necessary; voice is most important. So integrating voice technologies into WebCT is especially useful for language teaching.

Course feedback and concluding remarks

This article has focused on reporting certain technical and practical aspects of conducting a course on online education in Japan utilizing global communications. The concepts brainstormed in class, charted in Appendix 1, along with intercultural, pedagogical, and disciplinary issues are treated in other articles published since 2004 that can be accessed at the author's online library: http://www.waoe.org/steve/epublist.html

Since Japanese self-expression tends to be understated, avoiding extremes, their glowing reports in Appendix 2 (translated version) or Appendix 3 (original Japanese) bode well for the future of online education in Japan. To paraphrase the saying attributed to Confucius, they did not just receive a loaf of bread (informational course content) but learned how to fish (online learning technologies, skills and strategies to use from then on), so they expressly looked forward to further empowering themselves as learners and teachers with online education.

Besides the reports included hereinafter, there was all the preserved class work such as individual student reports and their messages posted in the online media. Here is an example transcribing exactly what a graduate student said by means of the Wimba Voice Board. A specific goal of the course was for students to construct knowledge of how online education could be applied to TEFL in Japan.

I'd like to speak my impressions ... Through this intensive course on online education I have found some new possibilities for Japanese students to learn English. First, online education can provide the participants with the opportunities of not only input but output. For example, chatting gives a good chance to improve writing skills, and teleconferencing is a good chance to improve fluency in speaking. The activities like these are really important for Japanese students because they have little chance to use English in their daily life. English is not a second language to the Japanese. Second, they can learn English at their own pace according to their own English level. Online education can become less threatening and more comfortable way of learning to some students than face-to-face situation. Generally speaking, Japanese who are learning English are not confident in their communication skills. And there are many Japanese who are shy. Online education can give them a good preparation for face-to-face communication.

A female student who did not need credit for the course nevertheless volunteered the following by e-mail on February 19, 2004:

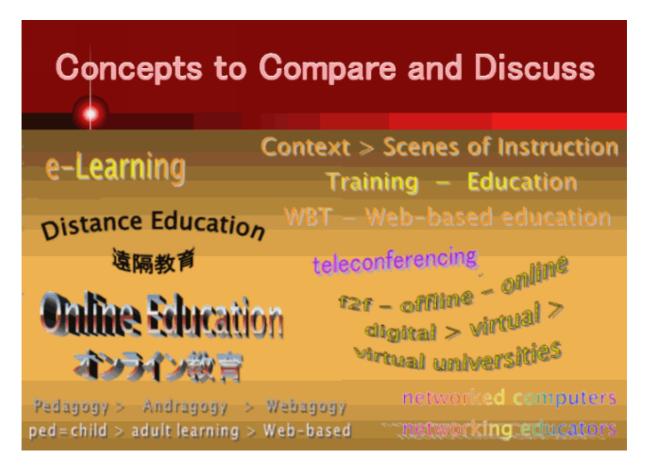
according to this course, we can get appropriately materials from time to time by 'virtual organization.' ... The [Japanese government-prescribed] course of study says that communicative competence is important if we live in Japan. Given that, this system does meet requirements presented for EFL education in Japan. Due to this course, I find that we can use online education to give learners a chance to *communicate* (or interact) as well as to develop their proficiency. ... Especially, I enjoyed many practical tasks! So, I want to keep studying this [emphasis in original].

One of the mentors, Nicholas Bowskill at the University of Sheffield wrote the following on August 19, 2004:

For me it had echoes of the online mentoring activities [of WAOE; cf. <www.waoe.org/mentor>] in the way it assembled a group of distributed mentors for the temporary needs of another group/individual. ... having a community of knowledgeable and willing volunteers we are able to be mutually supportive in ways that look beyond institutional boundaries. So, for me, the experience reconfirmed my belief in the power of a professional online learning community.

Indeed, what one instructor could accomplish was extended by networking among educators as well as by networked computers. Seeing the potential of ICT to link people as well as to overcome space and time, both lay people and educators will be motivated to become lifelong learners progressively empowered by online education.

Appendix 1: the course flyer



This intensive practicum for University of Tsukuba graduate students majoring in English education will be conducted in a computer classroom connected to the Internet. As the Ministry of Education (MEXT) emphasizes both computer literacy and developing "Japanese with English abilities" as young as possible, course participants will gain readiness to apply Internet information and communication technologies to their future English as a Foreign Language classes in Japan. The course aims for an understanding of the discipline of online education: its basic parameters, concepts, trends and issues, globally as well as in Japan. Online educator skills will also be developed through hands-on training in the WebCT learning management system based at Portland State University in Oregon. Demonstrating one of the advantages of online education, there will be expert participation in the course from abroad through the Internet. ... The practicum will be evaluated by short writings submitted and class participation. Classes will be mostly in English, with some Japanese resources and questions welcome.

Appendix 2: Translation of the graduate students' report in Japanese

Translations and added clarifications in brackets by the author

Theory and Practice of Online Education, 9:00 a.m.-5:00 p.m., February 16-20, 2004

2/16 First Day PC and projector setup plus student logins took about an hour. **10:00 Activities** Prof. Iwasaki introduced Prof. McCarty. Students introduced themselves, where they are from, their interests, and experience with computers (for what purposes, using what programs). With a view to gathering reference materials for the final essay, Prof. McCarty explained how to take screen shots and paste them into Word documents. **Impressions** Nearly all the participants had only experienced e-mail, Word and Excel, etc. [probably also Web-surfing], so it was our first time to make a home page, chat, audioconference, and more.

Copying Web pages into Word documents will prove to be extremely useful even after this course. 10:30 Activities From Prof. McCarty's home page <www.waoe.org/steve> we logged into [the Portland] WebCT, and from its home page accessed the syllabus, calendar, etc., to grasp a summary of the course. We were guided to the main Web pages to be used [including setting a browser bookmark or favorite] and how to operate the basic functions of the programs used. After that we heard an introduction of the mentors while viewing their home pages. At that point, with the mentors' home pages as a reference, we made our own home pages. Impressions Rather than being suddenly hit with high-level content, we were guided step-by-step through basic Internet functions and can recall almost no difficulties in learning. It was the first time for almost all of us to make a home page, so a bit of confusion was observed at first, but by the second half of the session everyone was used to the functions, including some useful tips, and had arrived at their own home pages with unique characteristics. [The Student Home Pages function of WebCT lets them design a page of the site with a simple HTML editor. To include photos of them, the instructor had them take photos of each other with their Internet-enabled mobile phones with a camera function, then attach the photos to an e-mail message sent to the instructor's Web mail based in the U.S., which the instructor accessed from a computer in the classroom. The digital photo GIF graphic files were then passed to students on a disk, and the students uploaded them to the WebCT site in the U.S. The instructor then asked them to think of exactly where the data had travelled throughout that process, in which wireless and trans-oceanic electronic transmissions had been nearly instantaneous]. 11:30 Lunch Prof. McCarty had lunch with us and was joking about noodles here vs. where he lives. Although it was the first day there was an extremely frank atmosphere. [Only this day's lunch is reported. While the instructor alternated English and Japanese with them socially, students complained that their professors taught about English all in Japanese and were remote. Whereas online education aims to bridge physical separation psychologically, an unapproachable professor at the podium in the f2f classroom may constitute a more unbridgeable form of distance education]. 12:30 We experienced the Wimba Voice Board. It is a kind of BBS with sound, but written messages can be included. Prof. McCarty recommended that a written summary of our message could help before recording our voices. We all did that in answering questions on 1) our previous knowledge of online education in Japan or elsewhere before we found out about this class, 2) why we were interested in taking this subject, and 3) after starting this course, what ideas we had about how online education could be applied to TEFL in Japan or to our future studies and work. [This data is available to be transcribed, but because of space limitations, only some statements by students later in the course can be cited]. 15:00 From Prof. McCarty's home page we followed links to Websites according to our interests. We found out about sites for machine translation between English and Japanese, for checking our English grammar, and students continually expressed amazement, particularly that the sites were free. [During and after class the instructor could advise students on Websites for their individual needs as well].

2/17, Day 2. 9:00-10:00 [There was a different writer for each day.] **Activities** Eight students were present to log in. We were introduced to the upcoming chat [with mentors abroad]. **Impressions** For most students it was the first time to chat, and we looked forward to the start of it with anticipation. **10:00-11:30** The chat theme was "What is Online Education?" There were eight of us students, Prof. McCarty and three mentors. Besides defining online education, its problems (compared to f2f classes) and issues when introducing it into Japan were actively discussed in writing. **Impressions** We could not keep up with all the messages. Sometimes a response was separated from the original message. But participants mentioned people's login names at the beginning of a response to make it easy to follow, so we could find the responses

to our messages and enjoy the chat. To exchange views in this way with people afar in nearly real time would have been inconceivable before the development of the Internet. Of course when many people are participating there are limitations such as difficulty in finding needed messages, but in this case we found ways to avoid such problems. We also received the chat log file to go over again at our leisure. Compared to a BBS, chat has strengths and weaknesses, so it is difficult to say which is better. But both BBS and chat have good points, and contemporary junior and senior high school students would like this type of communication. It would provide a way to get accustomed to English while having fun. 11:30-12:20 After the chat there was a summation on chat and issues of using it in online education. We learned about using smilies such as :-) when joking. 13:30-17:00 Activities We went away from the computers, formed a circle and discussed the theme of "Global Online Education" [the instructor's global survey results were passed out]. Ten circumstances surrounding online education were discussed in terms of 1) the situation in Japan, and 2) comparing other countries and discerning patterns in the data. The sources to think about (questionnaire results) were read aloud in turn, with Prof. McCarty adding explanations and clarifying vocabulary. The ten circumstances in respondents' countries were a) the state of use of Virtual Learning Environments in education, b) online education widespread or confined to privileged sectors, c) extent of involvement by women, d) attitudes to globalization, e) societal factors impacting on online education, f) government and media attitudes, g) existence of virtual universities and schools, h) accreditation issues, i) students enrolling in online programs based in other countries, and j) obstacles to accessing online education. [For the complete questions, compiled responses (from mostly non-Western countries), and analysis of results, see McCarty, Ibrahim, Sedunov and Sharma (forthcoming)]. Impressions We had hardly heard of online education before this course, but this discussion provided a good opportunity to think about it. This takes nothing away from f2f education, of course, which is suitable especially for younger students. But online education has numerous strengths, so combining f2f with online education is certain to be much more effective. It was keenly felt that this should be a nationwide topic of discussion from now on.

2/18, Third Day. 9:00-11:30 Audioconference Seven of us students had a discussion with three practitioners of online education abroad. We first saw a presentation on our computer screens [utilizing HorizonLive, and demonstrating some of its features such as polls], then exchanged views on online education, mainly in the form of our questions being answered by the teachers. Subjects discussed were online education in concrete practice, its results and benefits, its conceivable problems and solution methods, and future possibilities of online education in Japan. Impressions This was a first experience of audioconferencing, and although approaching it nervously, one could shed timidity and exchange opinions, so it was extremely meaningful. For Japan at its current stage to introduce online education there are a number of problems that must be solved, but it should be examined for its potential as a future educational system. 13:00-14:00 Searching for References From Prof. McCarty's home page we learned how to find some references useful for research, and other references were introduced. 14:10-17:00 Studying by BBS [the WebCT Discussion function]. Each of us students answered questions on the electronic bulletin board: 1) what online education is, 2) what e-learning is and how it differs from online education, 3) how distance education differs from online education, 4) the difference between f2f and offline, and 5) whether or not teleconferencing [such as the World Bank's dedicated satellite-based system not using the Internet] is preferable to online education. With the technical terms in each question explained by Prof. McCarty, we gained a deep understanding of online education. While we answered and asked additional questions at our own pace, our examination of online education continued [see the next day for a follow-up on the questions. The brainstorming chart and readings assigned by e-mail before the course started were intended to help clarify the relevant concepts]. **Impressions** Using a BBS is markedly more efficient that than the traditional blackboard, chalk and notebook, and there are various applications, so it was felt that it should by all means be used in mainstream educational institutions.

2/19 Fourth Day. 9:00-11:00 Yesterday's BBS questions and answers were rendered aloud, and then all of us had a deeper discussion of the issues. Prof. McCarty provided augmented explanations of each item and the following points were heard [regarding the same five questions of the previous afternoon]: 1) There is a tendency to think that online education means the students are always connected to the Internet, but that is not necessarily so. Materials such as from voice/discussion boards [downloaded for study offline] can also be considered online education. 2) E-learning indicates learning methods utilizing digital appliances, for example CD-ROMs and computers [offline CAI as well as online learning]. 3) In distance education the school tends to be too far from the student and materials are sent by post, or correspondence education takes a form such as two-way radio, whereas in online education through the Internet the student can, for example, participate in a virtual school and progress in studies [whether or not separated geographically from the institution and teachers]. 4) F2F means actual in-person human communication in the traditional classroom between teachers and students, whereas offline means that one's computer is not connected to the Internet at a given time or that communication takes place with dedicated software [not utilizing the Internet]. 5) [Proprietary] videoconferencing has been widely used in industry and could also be beneficial for education. But whereas videoconferencing incurs huge costs. online educational systems are comparatively low in cost[, widening educational opportunities for people globally]. To investigate the meaning of technical terms we learned about the Google Website, and particularly the technique of typing "define: [term]." 11:00-13:00 Using the Voice Board we exchanged views [with the instructor and other students]. As an example, how could the online education techniques we have learned up to now be applied to EFL in Japan? Will it heighten students' motivation? Will the learners themselves grow? We further discussed the future potential of online education. 14:00-15:30 We learned about an online academic conference while visiting its Website at the University of Hawaii. They have been conducted since 1996 but have not become a big trend. Conferences were originally confined to the elite or wealthy, but online conferences are inexpensive, not requiring travel, and can involve people of various levels. We also learned to compare the open Web that is freely accessible and searchable with the password-protected Web where only registered members can enter [online courses such as with WebCT are usually of the latter type and cannot be spidered by search engines]. Finally we discussed [offline in a circle] what kind of virtual organization in which we might like to participate. Examples included networks of EFL teachers or of alumni so as not to lose contact in the future. 15:30-17:00 We started working independently on our class paper to submit at the end of the day tomorrow. **Impressions** In this class we engaged not only in practical activities like chat and audioconferencing but also in the theoretical side characteristic of the typical class. We also received very important feedback from student-student exchanges. The teacher brought the discussion together in the form of augmenting our own views, so the progression of the discussion was easily understandable. There were some difficult theoretical issues, but explanations were illustrated by very helpful examples. The great potential online education holds has left a lasting impression.

2/20 Fifth and Last Day. 9:00-10:00 Before the second audioconference was scheduled to begin, students did independent work such as reviewing course Websites or working on their final report. **10:00-11:00** The second audioconference started and particularly Maggie [author

of online learning textbooks such as McVay-Lynch (2004), who had conducted the earlier online presentation] in America was peppered with questions all the students had accumulated in this class. Concerning the actual situation of online education, roles of teachers and students, Maggie patiently answered one question after another, undeterred by our Japanese-accented English. It was palpably felt that she was a leader in this field. Later Prof. McCarty left a lasting impression by pointing out how the Japanese word [Chinese characters] for human beings literally stressed the relationships between people, and that he similarly found relationships the essence of the connectivity in online education. 11:00-15:00 [End of the Course] Students worked independently on their final reports and, although some struggled with computer glitches, submitted them [attached to e-mail messages as MS Word files including screen shots]. A photo of the students with the instructor was taken [with a digital camera], commemorating five satisfying days of the intensive course. Impressions Audioconferencing, where a number of human beings could talk to each other in close to real time across the ocean, was an experience even more enjoyable than expected. Even so, slight time lags and noise, and not being able to see the expression of one's interlocutors, made it feel like a more difficult activity for the learner that the usual f2f communication. Even so it was undeniably superb practical training in listening and speaking. Having had almost no prior knowledge of online education, this intensive course was very useful for grasping the big picture. Particularly for junior and senior high school students in Japan who have hardly any opportunity to use English outside of class, online education holds superb potential. It is a most suitable place for activating and actually using what is learned in class. Education through the Internet had seemed to be something personal and closed off from others, but it turns out to be surprisingly interactive. It is useful in expanding the individual's narrow world. Provision of online education opportunities in Japan, with students participating unreservedly, is to be anticipated. We close this report by thanking the organizer Prof. Iwasaki as well as Prof. McCarty for the superb course.

Appendix 3: The students' original report on the course and their impressions

授業の概要 Theory and Practice of Online Education

日程:2004年2月16日(月)から2月20日(金)- 授業時間:9:00~17:00 場所:筑波大学文化系修士棟8A203-参加者:8名

2月16日(月)初日 - 初日であるため、PC やプロジェクターのセッティング、各生徒の $\log \ln \alpha$ などによりやや時間がかかるが、本講義の世話人である磐崎先生や、筑波大学の PC 管理者である大室さんの助けにより、10:00 頃には全員が授業を開始できる準備が整った形になった。

10:00~【活動】磐崎先生から、本講義の教授を努める McCarty 先生の紹介があり、引き続き、受講生がそれぞれ以下の項目に触れながら、自己紹介を行った。 名前 出身地趣味など自分に関すること これまでの PC 経験(どのような目的で PC を使っているか、またそのためにどんなプログラムを使ったことがあるか)。その後、今後、受講する講義の内容の記録として、同時にファイナルエッセイの参考資料として非常に有効な Screen Shotの取り方を説明いただく($Alt + Print Screen \rightarrow Paste$)。

【感想】ほとんどの参加メンバーはこれまで、ワードやエクセル、Eメールなどを使ったことがあるが、HP 作成、チャットや audio conference などに関しては未経験であった。自分が経験した HP の画面をそのままワード上に保存できる Screen Shot は、この講義中のみならず非常に有効な方法であると思われる。

10:30~【活動】McCarty 先生の HP <www.waoe.org/steve> より、WebCT <www.de.pdx.edu/webct/students>に各自 log in し、その HP 上で公開されている syllabus や calendar 等から本講義の概要を大まかにつかむと同時に、本講義に主に用いられる HP やプログラムの基本操作を指導いただいた。その後、Diane Howard's や、Maggie McVay-Lynch や Michael Warner の HP を見ながら、この講義に参加して下さるメンバーの紹介をいただいた。その後、彼らの HP を参考にして自分たちも WebCT 上に、それぞれの HP の作成を行った。【感想】いきなり高度な内容ではなく、インターネットの基本操作の段階からしっかりと指導していただいたので、困難感をほとんど覚えずに学習することができた。HP づくりではほとんどの受講者が初めての体験であったため、初めは多少とまどう場面も見受けられたが、後半ではみな操作に慣れ、コツもつかんできたのもあって、受講者それぞれが特徴ある HP を作成するに至った。

11:30~ 昼食 McCarty 先生の希望で、学内のラーメン屋で昼食をとった。McCarty 先生から「地元では讃岐うどんしか食べられないから、ラーメンは非常においし〈感じる」などと言うジョークも飛び出すなど、初日であるながら非常に打ち解けた雰囲気であった。

12:30 Wimba の Voice board を体験する。これは音声掲示板の一種であり、メッセージを 文体と音声の両方で掲示できるプログラムである。 Voice board には事前に McCarty 先生 から以下のような質問が受講生全員に向け掲示してあった。

Please answer the oral questions by replying to this message. A brief written summary like this message might help before recording your voice. 1) What did you know about online education (or education through the Internet) - in Japan or other countries - before you found out about this course? 2) Why were you interested in taking this subject? 3) Now, after starting this class, do you have any ideas about how online education could be applied to TEFL in Japan or your future studies and work?

受講生は、それぞれの答えを、まず文章で書き込んだ上に、音声でもそれに答え掲示版に載せた。

15:00 McCarty 先生のHP上で紹介されている様々なHPを実際にそれぞれの好みに応じて観察した。英語から日本語、日本語から英語の両方が可能な自動翻訳のHPや、細かい文法項目のチェックを行うHPなど受講生一同「こんなHPが無料で提供されているのだなぁ」と驚きと感心の連続であった。

2月17日(火)(第2日) 9:00~10:00 [活動] 授業開始。参加者8名。2日目ということもあり、みんな要領よくログイン。10時から行うチャットについて説明を受けた。【感想】チャットを行うのは初めてという学生が多く、開始を楽しみに待っている学生が多い。10:00~11:30 [活動] チャット。(テーマは「オンライン教育とは(定義)」)。参加者はマッカーティ先生、我々学生8名の他に3人のメンター。オンライン教育の定義の他、(f2iと比較しての)オンライン教育の問題や日本における導入の際の問題点など、活発な書き込みが行われた。【感想】メッセージを全て読もうとするととても間に合わない。また、もとのメッセージとそれに対するレスポンスが離れて表示されている。ログインネームを頼りに目的のメッセージを見つけ、相手にもわかりやすくするために相手の名前を先頭に入れたりして自分のメッセージに対するレスポンスなどを要領よく見つけ、チャットを楽しむことができた。このように、遠くの人とほぼリアルタイムで意見交換ができるとは、インターネットが発展する以前には考えられなかった。もちろん多くの人が参加すると、必要なメッセージを探したりするのに困難が生じたりする短所もあるが、今回の我々のような工夫によりかない回避することもできるであろう。また、ログによって内容を落ち着いて振り替えることも可能である。BBSと比較すると、それぞれに長所短所があり、どちらがよいか決めるのは難しいが、そ

れぞれによさがあるし、このようなタイプのコミュニケーションは現代の中学生や高校生が 好むように思われる。楽しみながら英語になれる一助にもなるであろう。

11:30~12:20 【活動】チャット終了後、チャットやチャットを利用したオンライン教育についての問題点の提示や総括。冗談の時には「:-)」「;-)」などを使うことを習う。

13:30~17:00 【活動】課題(「Global Online Education」) についてのディスカッション コンピュータを離れて、輪を作って。課題になっていた「Global Online Education」をとりまく1 0の状況について、1)日本の状況、と、2)諸外国の比較(パターン化)、を学生みんなでデ ィスカッションする。 与えられた文献 (アンケート結果)を少しずつ分担して音読、 マッカーティ 先生による補足説明(語彙等)の後、学生が質問に答える。扱った状況は以下の通り。A) 教育のためのバーチャル学習環境使用状況。B)教育目的のインターネットの活用は、大 学の一部のエリートに限定されるか。C)バーチャル学習環境への女性の参加状況 D) グローバリゼーションに対する考え。 E) 社会問題。F) 指導者やメディアは好意的に考 えているか。G)バーチャル大学・バーチャル学校の存在状況。H)バーチャル大学・バーチ ャル学校で単位が認められるか。[)インターネットを通して外国の制度で学ぶ人は多いか。 」)オンライン教育の抱える障害。【感想】我々は、今まであまりオンライン教育という言葉 すら耳にしたこともなく、考える機会も無かったが、今回のディスカッションを通じて考えるい い機会になった。もちろんf2fによる教育のよさは否定しないし、日本においてはその方が (特に幼少期の教育には)適していると思える。しかし、オンライン教育にも数々の長所があ り、「2」とオンライン教育を組み合わせることにより、一層の効果が上がることは間違いなか ろう。今後国民的にもっと話題にすべきことであると痛感した。

2月18日(水)(第3日) 受講者の朝の体調は必ずしも万全ではなかったが、教室でコンピュータの前に座ると、皆不思議にやる気がみなぎってきたようだ。本日の活動は以下のとおりである。 1. Audioconference (10:00~11:30) インターネットを通じて、我々7名、アメリカや英国のオンライン教育に関わっている4名の先生方でディスカッションを行った。最初にオンライン教育についてのプレゼンテーションをコンピュータのスクリーン上で視聴し、オンライン教育についての意見交換を、主に我々からの質問に先生方が答える形で行った。主な内容は、オンライン教育のより具体的実践について、その効果と利点、考えられる問題点とその解決方法、日本でのオンライン教育の今後の可能性等である。

- 2.文献検索(13:00~14:00) マッカーティ先生のホームページから研究に役立つ文献の検索方法、また幾つかの文献についての紹介をいただいた。
- 3.電子掲示板での学習(14:10~17:00) 以下の質問について各自が電子掲示板に解答した。 A) What is online education? B) What is e-learning? What is the difference between e-learning and online education? C) What is the difference between distance education and online education? D) What is the difference between face-to-face and offline? E) Which is better, teleconferencing or online education?

なお各問題や専門用語の解説をマッカーティ先生からいただき、オンライン教育についての理解を深めた。また、各自が自分のペースで追加された質問について解答しながらオンライン学習への考察を続けた。【感想】Audioconference は初めての経験で、緊張しながらのぞんだが、臆することな〈意見交換をすることができ、非常に有意義なものであった。現段階では日本でオンライン教育を導入するためには、解決すべき問題が多数あると思われるが、将来に可能性のある教育システムとして検討されるべきであろう。

電子掲示板での学習は、伝統的な黒板とチョーク、ノートでの学習より格段に効率的で、 その応用も多岐にわたるので、是非とも日本の教育現場でも利用されるべきであると感じた。

- **2月19日(木)(4日目)** 9:00~11:00 昨日各自が電子掲示板に解答したものを口頭で発表し、全員でさらにそれらの問題について話し合いを深めていく。マッカーティ先生により様々な点で補足説明がされました。以下のポイントが議論されました。
- A) What is online education? 一般的に Online Education は学習者が常時インターネット上にいなければならないと考えられがちであるが、実際は必ずしもそうではなく、またインターネットを通して得られたマテリアル(voice/discussion boards, etc.) から学ぶこともOnline Education とみなすことができる。
- B) What is e-learning? E-learning とはデジタル機器を使った学習方法を指し、例えば CD-ROM、コンピュータなどの学習を E-learning と考えることが可能である。
- C) What is the difference between distance education and online education? Online Education ではインターネット上のバーチャルスクールに生徒が参加して学習が進んでいく。Distance Education の場合は、学校に距離的に通うのが困難な時、資料を郵送したり、又、無線によって行なわれる通信教育などが Distance Education (遠隔教育)の1 例である。
- D) What is the difference between F2F and offline? F2F では、実在する人間同士のコミュニケーションを意味し、伝統的なクラスルームを指す時もある。つまり、先生、生徒が教室の中でコミュニケーションをとるような状態である。Offline とはインターネットに接続がせれていないコンピュータ、又はある種のソフトウェアーによるコミュニケーションを意味する。
- E) Which is better, teleconferencing or online education? ビデオ会議には、莫大な費用がかかるのに対して、Online は比較的にコストのかからない教育の方法である。現在ビデオ会議は企業によって広く使われているが教育的にも有意義に用いることが可能である。

さらに専門用語の定義の検索方法として、Google サイトの紹介があり、その方法としまして、「define: 専門用語」とタイプすることでその専門用語の定義が得られます。

 $11:00 \sim 13:00$ Voice Board によってお互いの意見を交換し、議論していきました。議論の例としては、今まで学んできた Online Education の技術をどのように日本の EFL に当てはめることができるか?いかに学習者のモチベーションを高められるか?また学習者自身が高めていくことができるか?などの議論があり、さらに Online Education の将来的可能性について話し合いました。

14:00~15:30 ハワイ大学のサイトから、Online での学会について説明されました。Online での学会は96年頃から行なわれていたのですが、あまりトレンドにはならなかった。元来の学会はエリート、もしくは金銭的にかなりの余裕があるひとを対象にして行われてきた傾向にあるが、Online での学会は低い費用、遠方からの参加者、学校や職業にも異なったレヴェルの参加者を可能にした。

Open WebとPassword-protected Webとの比較もあり、Open Webでは誰もが外から検索してデータを見たり、得たりすることが可能な一方、Password-protectedではデータが完全にメンバーのために守られており、外からの侵入を許さないように設定されています。

最後に各自どのようなバーチャル Organization に参加したいかという質問に対し、例えば EFL の先生のための組織、または単にコンタクトを失わないための組織開設などの意見がでました。

15:30~17:00:各自明日提出予定の論文に励んでいました。【感想】 このクラスでは、実践的なこと、例えばチャット、Audioconferencing などだけでなく、理論的な側面を持った平

均の取れたクラスである。また、生徒同士の意見交換により大変重要なフィードバックもあり、それに補足する形で先生が議論をまとめて〈ださるので、非常に分かりやす〈 Discussion も進んでいきます。理論的な側面はかなり困難だと思われるところもありますが、 なんらかの例を取り上げて説明して頂けるので大変助かります。 最後に Online Education が持つ可能性がいかに高いかということが私の心に残りました。

2月20日(金)(5日目:最終日) 9:00~10:00 2回目の Audioconference が始まるまで、各自今までのサイトを閲覧したり、最終レポートの原稿を書いたりして過ごしました。10:00~11:00 2回目の Audioconference が始まりました。今回はアメリカよりマギー先生を迎えてディスカッションがなされました。これまでの授業で生まれたオンライン教育に対する疑問を、各受講者が先生に向けて問いかけました。具体的なオンライン教育の現状や、生徒、教師の役割などについて質問がなされ、マギー先生がその1つ1つについて丁寧な回答を示してくださいました。我々の日本語なまりの英語を聞き返すこともなく、よどみなく回答していく様は、さすがオンライン教育の先駆者であると感じました。また、討議の後半でマッカーティ先生が、我々がこうした教育における connectivity もしくは relationship を重視しているという話をされ、これは日本語の「人間」、すなわち人と人との関係を重視する考えの反映ではないかという話をされたのが印象に残りました。

11:00~15:00 この時間帯は最後レポートを仕上げるのにあてられました。コンピュータ のトラブルに苦しめられた人もいましたが、みな無事にレポートを(電子的に)提出しました。 最後にマッカ・ティ先生と受講者で記念写真をとり、充実した5日間の集中講義も終わりに なりました。【感想】他の授業との兼ね合いで3日目の Audioconference には参加できな かったため、本日の第2回目を楽しみにしていました。ほぼリアルタイムで複数の人間が海 を越えて話し合うという体験は予想以上に楽しいものでした。しかしながら若干のタイムラ グとノイズがあり、その上で相手の表情も見えないため、普通のフェーストゥフェース・コミュ ニケーションよりも、学習者に難しい活動であるように感じました。いずれにせよ、リスニン グとスピーキングのすばらしい実践的トレーニングになりうることは間違いありません。 こ れまでオンライン教育に関する知識はほとんどなかったので、その全体像を知る上で、この 集中講義は大変役に立ちました。特に教室以外ではほぼ英語を使う機会がない日本の中 学生や高校生にとって、オンライン教育はすばらしい可能性を秘めていることが分かりまし た。教室で得た知識を生かし、実際に使う場として最適であるように思います。インターネッ トを通じた教育というと、なにか個人的で閉じられたものを想像していましたが、思いのほか インタラクティブであり、個人の狭い世界を広げるのにも役立つことが認識できました。日本 でもこれからもっとオンライン教育が普及し、学生が気軽に利用できるようになることを期待 しています。

最後にこのすばらしい講座を担当して〈ださったマッカ - ティ先生、世話役であった岩崎先生に感謝の意を表し、この報告を締め〈〈らせていただきたいと思います。ありがとうございました。