

Chapter 7

The Affordances of Technology for Student Teachers to Shape their Teacher Education Experience

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INTRODUCTION AND BACKGROUND

This chapter discusses a three-semester research study of changes to a one-semester course in an in-service Masters in Education program. This particular course was chosen for study because of a number of problems that had beset the design and teaching over the last several semesters in which it had been taught. Since the third semester is still in progress, the second semester trial is the focus of this discussion as it represents the first semester in which major changes were implemented in the teaching and learning approach taken.

The course, Technology and Language Learning, is offered every semester as part of the Masters in Education (Teaching English as a Second Language [TESOL]/Languages Other Than English [LOTE]) program. It aims to provide practicing teachers, at elementary and secondary schools as well as postsecondary and private language schools, with an understanding of the technology available to them for the enhancement of their teaching and incorporation into the curriculum. This understanding is firmly based in a theoretical and historical framework appropriate to current language pedagogical approaches which are predominantly social constructivist in nature and focus on learner-centered curricula, cooperative and collaborative processes, the development of higher thinking skills, and real-life tasks. Over the life of the program, however, which has now been in place for 14 years, a number of problems have emerged from both teaching and learning perspectives. These can be summarized as

1. timetabling and timing constraints;
2. course content: what to teach, given the rapidity and diversity of changes in technological developments and the needs and skills of classroom teachers of language; and
3. what teaching and learning model to adopt that will encompass
 - a. our current theoretical understandings of second language acquisition,
 - b. the changing roles of technology in our daily and professional lives,
 - c. learning of the practical skills necessary in implementing CALL successfully in language classes, and
 - d. sound contemporary pedagogy.

Each of these problems will now be outlined in further detail to provide a clearer background to the formulation of the changes in course design, content and approach.

Timetabling Constraints

Timetabling constraints in this course mainly derive from the composition of the classes which comprise a combination of local students working full-time—or part time at odd hours—and overseas students who are studying full time. Since most of the local students in this course are currently teaching, classes have always been scheduled outside of work hours in the evening. Consequently, these students come to class tired and, because they are in the age range 28-60 years old, often have home and family commitments which further impinge on their ability to attend or concentrate in class. In addition, increasing numbers of students in the Masters program are from overseas and do not wish to take evening classes, if at all possible, since they are full-time students and wish to complete their program of study in the shortest time. Others would even prefer to have the opportunity to continue at least part of their studies from their home countries or from countries where they have found work. The technology course is further constrained because of the need to be scheduled in computer laboratories, most of which are fully booked during the day for more traditionally technology-intensive courses such as IT or media studies. Historically, this course had been timetabled for Friday evening, 4:30-7:30 p.m. This timeslot was understandably not popular with students in general and, given the nature of the student cohort as described above, student attendance in classes dropped drastically, particularly towards the end of semester, even though students remained enrolled. Because many students were not attending scheduled classes, a lot of additional work was put on the teacher in the form of telephone calls, catch-up email and face-to-face (F2F) consultation outside of class hours in order to support these students to complete the necessary assessment projects.

Although students in the Masters program pay full fees, changes in the distribution of this money has meant that these fees no longer come back to the school teaching the program, and funds are not available to pay teaching assistants for hands-on activities. There are, therefore, financial constraints on how courses within this program are taught, in addition to considerations of pedagogy and administration. In an effort to address the needs of this diverse body of students and provide more flexibility, faculty in the program have looked at a variety of options, one of which was to change the mode of some of the courses from F2F to fully or partially online with some intensive F2F seminars. This change is also seen as a means of embracing some of the newer approaches to learning and teaching made possible through the use of emerging social networking computing tools. This was certainly seen as a more pedagogically sound alternative than lapsing into the pattern seen elsewhere of transferring existing transmission or transaction teaching practices into a similar form simply delivered electronically (Zemsky & Massey, 2004; Anderson & Elloumni, 2004; Anderson, 2005; Hughes, 2005). The technology course was the most obvious choice as a trial and starting point for this

process. If this change in mode is well received by the students, the course will then be used as a model for other courses in the program to follow. It has therefore been necessary to document carefully the design, resourcing, and implementation tools and process, as well as to seek students' feedback on the change in mode and to what extent they feel their goals and expectations have been met. Table 1 shows an overview of the change in design focus across three semesters (phases 1-3).

Table 1
Course Format and Differences Over Three Semesters

Semester	Physical	Pedagogical	Assessment
Phase 1 (pilot)	<ul style="list-style-type: none"> • weekly 3-hour lecture/tutorials • 23 students at beginning, 18 at end with only 6 attending classes 	<ul style="list-style-type: none"> • fixed timetable • teacher-defined modules and order of presentation • fixed deadlines and order of assessment items 	<ul style="list-style-type: none"> • online discussion responses by module (specified number) • software evaluation form and essay discussion • major module development project and rationale essay
Phase 2	<ul style="list-style-type: none"> • 3 full-day workshops • F2F or electronic student drop-in sessions • 9 students at beginning, 7 at the end (fees increased 37% between semesters 1 and 2) 	<ul style="list-style-type: none"> • free form • learner shaped • responsive • individually learner-determined order and deadlines for assessment tasks 	<ul style="list-style-type: none"> • communication and collaboration through blogs, wiki, discussion forum, chat, email, SMS, and e-portfolio • WebQuest including teaching notes on teacher page and evaluation rubric • Module of online language learning activities based on online templating tools embedded in <i>Dreamweaver</i>
Phase 3 (current)	<ul style="list-style-type: none"> • 3 full-day workshops • F2F or electronic student drop-in sessions • 12 students at beginning 	<ul style="list-style-type: none"> • free form • learner shaped • responsive • fixed deadlines and order of assessment tasks 	<ul style="list-style-type: none"> • communication and collaboration through blogs, wiki, discussion forum, chat, email, SMS, and e-portfolio • WebQuest including teaching notes on teacher page and evaluation rubric • Module of online language-learning activities based on online templating tools embedded in <i>Dreamweaver</i>

Course Content and Pedagogy

As literature in the area of technology in teacher education shows (Reeves, 1996; Hughes, 2005), the process of becoming a user of integrated technology in the classroom necessarily involves the experience of successful uses of different tools available. In order then to become familiar enough with the uses of different forms of technology to see the wider range of affordances available (Gibson, 1986; van

Lier, 2000), teachers need experience with consistent modeling of effective uses and practice in their use (Bird & Rosaen, 2005; Brook & Oliver, 2005; Hughes, 2005). The term “affordances” is used here to refer to the characteristics and potential uses that individual learners felt that different software tools had to offer them. In other words, different learners saw different potential applications and implications in the range of tools to which they were exposed. As will be further elaborated below, through sharing their insights, experiences, and skills with each other, all learners managed to produce artifacts and achieve new learning that—as previous semesters had shown—they could not aspire to achieving individually or through the traditional mode of course offering. The work of Bird and Rosaen (2005) with preservice teachers and that of Hughes (2005) with in-service professional development provided useful precedents for the current study with in-service teachers, as well as the insights of Blythe (2001) into the practicalities of learner-centered design.

In all three semesters, the stated aims of this course included exploring the creative teaching potential of technology such as computer-enhanced language learning (CELL), interactive multimedia, and tools for social computing as well as exploring access to and pedagogical uses of electronic communication such as email, listservs, chat, and discussion forums. Through this exploration, the course explicitly focused on the possible roles technology can play in changing models of language teaching and learning. Content included the following theoretical and practical components:

1. research and theory relating to the effectiveness of technology in language learning;
2. the computer as tutor or tool or manager of learning;
3. the integration of technology into a second-language program;
4. issues of classroom uses and self-access uses of technology, including instructional design, presentation, learner interaction, and feedback;
5. techniques for evaluating the quality and usefulness of CELL software and other technology-based language learning materials; and
6. developing learner autonomy through active use of technology in language learning—exploiting the media in optimal ways.

Since the field of CELL is becoming broader as advances in technology make it increasingly possible to make global connections and integrate content and tools from around the world in quite simple ways, trying to cover the specifications of the course in one semester became an unwieldy problem. The theoretical underpinnings, technical expertise, and pedagogical uses would each occupy at least a full semester of study to deal with adequately. The decision was made therefore to approach the course as an introduction to the field and to put into place a course structure that allowed students to select and undertake their own focused study and development in a range of areas salient to their own perceived needs while providing the necessary theoretical grounding through directed and timely readings across the gamut of current theorizing and research. Consideration also needed to be given to the fact that students enrolled in this course with a very

broad range of starting points in terms of technical familiarity and expertise. This balance of factors was predominantly achieved through careful selection and design of the assessment pieces, including scaffolding of the tasks, a broad range of models, a variety of tools, guides, worksheets (both developed by the author and sourced from the web), and workshop-focused readings, all catering to different learning preferences. Before each of the three workshops in the course, a collection of relevant preparatory readings was posted on the learning management system (LMS) tagged for interest area.

The experiential modeling approach taken in the design and teaching of this course therefore aimed to immerse students in the use of the technologies while at the same time providing them with the freedom and framework within which to experience the practical application of the theory in their own learning. This experience included self-directed selection and construction of content and, to some extent, the assessment tasks. The development of self-reflection skills, peer feedback, and support strategies paralleled their acquisition of technical and metacognitive skills of planning, monitoring, and self-organization (Oxford, 1990). The parallel development of these skills seemed to emerge organically from a self- and mutually supportive collection of individuals to form a cohesive interreliant collaborative community of learner-practitioners. Because this redesign was a local rather than university-wide initiative, little technical support was available to the teacher-students, apart from the central helpdesk and several professional development workshops (Barber & Wilkinson, 2005; Reiner, 2005). An additional influencing factor in this design effort was therefore the need to devote “a minimum of time to teaching uses of software, by employing the affordances of selected technology as tools for professional learning tasks that are authentic for school teaching” (Bird & Rosaen, 2005, p. 213).

Teaching and Learning Model

Contemporary literature on cognitive social constructivism and teacher change in the use of technology emphasizes the importance of self-reflection on one’s beliefs and values as a precursor to the emergence of consciousness of questions or conflict which can then facilitate change in attitudes and beliefs (Richardson & Placier, 2001; King, 2002; Hughes, 2005). As Hughes found, change in teachers’ attitudes towards technology in their teaching and subsequent effective use of it are entwined with teacher learning, comprising (a) subject matter knowledge, (b) pedagogical knowledge, and (c) pedagogical content knowledge. In other words, teachers will only embrace change and innovation when they can see positive benefits in terms of direct relevance to their content area, usefulness from a practical task perspective, and increased effectiveness for their day-to-day classroom teaching.

For the field of language teacher education, upheavals in mainstream pedagogy from teacher-centered, transmission approaches to more learner-centered, negotiated modes have been paralleled in the language content area. The emergence and maturation of communicative language teaching approaches over the last two to

three decades, with their emphases on using language for communication and negotiation of meaning rather than merely teaching about language, has meant that language teachers have been able to recognize and incorporate many aspects of social constructivism into their pedagogical approaches without too much change. However, the addition of technology into the communication process does represent a major change for many language teachers who are accustomed to more direct F2F modes of language learning, teaching, and use. For this reason, blogs and wikis were included in this course to provide student teachers with experience using software tools that facilitate social networking and collaborative work practices.

Compounding the changes in attitudes and pedagogical approach with the incorporation of technology in the program under discussion here is the additional feature of intercultural applicability. Since over 80% of the students in this Masters program are typically overseas-trained and practicing teachers from eight to twelve different countries, it was also necessary to be sensitive to the differences in background, prior pedagogical experience, and technological constraints of these students. Though awareness is increasing about the possibility of the need to modify or rethink social constructivist approaches to teaching and learning when teaching interculturally, little investigation in this area has been implemented to date (McLoughlin & Oliver, 2000; McLoughlin, 2001a, 2001b; Thorne, 2003; Hannon & D'Netto, 2005; Scholfield, 2005). Therefore, an investigation into attitudes and perceived usefulness of the range of tools and the pedagogical experiences of learners from different cultural backgrounds and returning to varied teaching contexts was critical to a comprehensive evaluation of the effectiveness of this transitional redesign (Hannon & D'Netto, 2005). Some discussion of the intercultural impact of the teaching and learning approach taken in this course is offered in later discussion sections. Also essential to the redesign of the course was the need to provide an approach to the course experience that was flexible enough to accommodate and support these students. Much discussion is emerging in the literature about the disruptive influences of new technologies on our lives (Bower & Christensen, 1995; Christensen, 1997; Dvorak, 2004), and this is especially true of language teachers who have not traditionally been early adopters of technology. To help these in-service language teachers realize the potential affordances (Gibson, 1986; Van Lier, 2000) of social networking software and tools of communications technology and to provide the flexibility in pedagogical approach necessary to cater to the range of cultures and teaching contexts represented in the class, it was decided to take an experiential modeling approach in the design of learning experiences in the course. This included the use of blogs throughout the course, as well as the incorporation of a wiki site and e-portfolios, to provide learners with the means of tracking their emerging understandings and competencies. Blogs were chosen as an individual reflective tool, the content of which would then be available to other learners elsewhere and in other semesters. The wiki was selected as a space for collaborative construction of information and projects within the course, as well as a site for the sharing and dissemination of information across semesters.

THE STUDY

Students in the Technology and Language Learning course are typically practicing teachers, both local and overseas, who are upgrading their qualifications for promotion purposes, to update their skills and knowledge in the field, to change positions, or to seek employment overseas. They are generally highly motivated to achieve and complete work and demand quality teaching and learning. Because of the on-going rapid developments in technology and the lag in adoption and understanding of these in the school sector, the teaching and content selection for this course had been problematic for some time. The decision was made therefore to conduct a longitudinal case study research project (see Table 2) while collecting information about student expectations, demands, outcomes, and perceptions about their acquisition of what they saw as necessary skills in the area of technology and language learning. Phase 1 in the first semester represented a pilot study in that student data, observations, and information collected in this semester formed the basis for the formulation of the modifications and focus group questions for subsequent semesters as well as helping to identify areas of possible change in the course design. Teaching experiences during Phase 1, together with the data collected during both Phase 1 and 2, were then used to reformulate the structure and focus of the course in the design for the third semester of the redesigned course.

Table 2
Phases of the Study

First semester (Phase 1)	Second semester (Phase 2)	Third semester (Phase 3)
Pilot study	Beginning of formal study	[still in process]
Preexisting teaching model with LMS, consisting of	First major redesign	Refinement phase
<ul style="list-style-type: none"> • worksheets • <i>PowerPoint</i> slides • notices from lecturer to students • calendar • discussion forum • reflective notepad • online readings database • tutorials for online-sourced tools 	Data from <ul style="list-style-type: none"> • precourse questionnaire • focus group discussions • short responses to evaluative questions 	Minor modifications to course design from Phase 2 student comments Data from <ul style="list-style-type: none"> • precourse questionnaire • focus group discussions • short responses to evaluative questions
Data from	Compared to reflective artifacts	Compared to reflective artifacts
<ul style="list-style-type: none"> • precourse questionnaire • observational and survey data collected • postcourse evaluation 	<ul style="list-style-type: none"> • blogs and wiki pages • discussion forum postings 	<ul style="list-style-type: none"> • blogs and wiki pages • discussion forum postings
	Compared to projects produced	Compared to projects produced
	<ul style="list-style-type: none"> • WebQuests • online activity modules • anonymous online formal course and teaching evaluation 	<ul style="list-style-type: none"> • WebQuests • online activity modules • anonymous online formal course and teaching evaluation
		[results not yet analyzed or included here]

It was decided to run a pilot study (Phase 1) over one semester to establish the needs of learners and to determine the range of possibility for change within the boundaries of the course, the program, and the institution. This was then followed by the first implementation phase, Phase 2, in which the major changes were implemented and then Phase 3 in which further refinements were introduced on the basis of outcomes from and student reactions to Phase 2. Each of these Phases was studied and data collected and analyzed in order to provide learners with the best course model for their needs.

As mentioned above, this study is longitudinal in nature and comprises three phases to date. Because of the experiential nature of the study, the outline of how this was conducted and data collected is necessarily embedded in the process of the evolution of the course. Aims of the study include documenting and analyzing teacher-student reactions and responses to changes in course design, including

1. changes to teaching approaches from a transmission or transaction approach;
2. changes in mode of teacher-student interaction from F2F to a blended model incorporating electronically mediated communication and collaborative construction of artifacts; and
3. changes in the learning experience from a receptive model to one which necessitates active student participation, collaborative negotiation with the teacher, other students, and the resource materials.

This study used a case study approach based on grounded research methodology (Knapp & Glenn, 1996; Reeves, 1996; Kanuka & Anderson, 1999; Willig, 2001; Passi & Mishra, 2004). Following these models, at the beginning of each semester, students responded to an online survey (see survey in Appendix A) which elicited their biographical details, their previous or existing computing experience, confidence, competence, and skill level (self-assessed), and information about their preferred language learning styles (based on Willing's [1989] inventory) and strategies (based on Oxford's [1990] inventory). In the first semester, Phase 1, this survey, without the biographical section, was also administered at the end of semester to discover student perceptions of learning that had taken place and any trends towards changes in their learning styles. Specific data collection techniques for each phase are detailed below.

Phase 1: Pilot Study

In the first semester of observation and data collection, as detailed earlier in Table 1, the course was conducted as it had been over previous semesters by different teachers with a focus on technology as content. Students were surveyed at the beginning of this semester for their competence and confidence in the use of a range of common computer-related skills and tools, their preferred learning styles and strategies, and their expectations of the course. Towards the end of the course, and before submission of the final individual project, students were anonymously surveyed by the program coordinator for their level of satisfaction with the course

and suggestions for improvement. Three main areas of improvement were evident in their responses:

1. more practical use of the technology (“We were in a computer room but we hardly used the computers at all” “Students should have had more practical work”)
2. greater learner focus in the course design and content (“more attention to students’ feelings and needs”)
3. less theoretical focus (“the large amount of theory in this subject was disappointing”)

These responses indicated a clear need for more hands-on tutorials and less theoretical work. That is, students’ expectation was for a better understanding of the tools available and more experience in using them, with much less focus on the pedagogical and theoretical aspects of software selection, evaluation, and integration into the curriculum. However, students’ responses revealed a conflict between their expectations and those of the university and future employers with respect to the content and quality of a Masters program in Education.

From a faculty perspective, this feedback highlighted the need to clarify better the outcomes of the course to emphasize the essential interrelations between theoretical and practical aspects of the uses of technology and the need to provide better focused hands-on workshop materials. Another revelation emerging from the feedback was the importance of radically changing the course assessment to reflect what the learners needed from such a course at this level, and to use the course experience to model the changes in pedagogy emerging from the increasing use and availability of social networking software. Following the example of Bird and Rosaen (2005), the decision was therefore made to change the mode of offering the course and to use available technology as both medium and content simultaneously through an experiential modeling approach. The design approach has also drawn on the experiences of Brook and Oliver (2005), Brown and Voltz (2005), and Steketee (2006) for advice on community creation and maintenance and the integration of technologies.

Phase 2: The Major Study

As mentioned above, and illustrated in Table 2 in the previous section, students in the second semester (a new cohort) also responded to the same precourse questionnaire as Phase 1 students, including questions about their prior computing experience, their confidence in performing several common computer-based actions, as well as their preferred learning styles and strategies. The information from this administration of the questionnaire was used to determine the level of support that students might require over the semester in order for the coordinator to monitor students’ progress and to provide timely and appropriate assistance and guidance. A summary of comments elicited by the precourse questionnaire is outlined in Table 3.

Table 3
Summary of Student Responses to the Phase 2 Precourse Questionnaire

“How do you feel about using computers to learn language?”	“Overall how do you see the role of computers for language learning?”	Learning style data
<ul style="list-style-type: none"> • Quite interesting: audio and visual possibilities • No experience, excellent way for learners to control their own learning, don’t know much • Quite comfortable • Excited, but how to avoid the glitches? • Good for individual preparation prior to immersion • Good for private study but prefer F2F • Requires autonomy which doesn’t suit my learning style • Don’t feel comfortable using blogs, discussion forums etc; too permanent 	<ul style="list-style-type: none"> • mainly as instructional CALL • not sure about using CMC with students; never know who they might be talking to • uncertain about being “out there” on the web • uncertain about student privacy and safety 	<ul style="list-style-type: none"> • 50% claimed to be not good autonomous learners • be not good in isolated environments • need F2F contact for learning

Experimenting with a learner-shaped approach to course design in the second semester (Hoven & Sussex, in press), no deadlines were set for assessment items which consisted of reflective and collaboratively constructed pieces over the semester using blogs, a class wiki, and an e-Portfolio as well as two creative pieces: a WebQuest and an online language learning module of activities. The creation of a WebQuest (<http://webquest.sdsu.edu>) designed for learning an aspect of language included student reflection on the relative uses and usefulness of such a task for their teaching contexts and teaching notes about this. Students learned about the purposes and construction of a WebQuest through the experience of completing a WebQuest on WebQuest creation constructed by the course coordinator. The major piece of assessment was an online language teaching module using templating tools such as *Hot Potatoes* (<http://hotpot.uvic.ca>) and *Swarthmore Makers* (<http://lang.swarthmore.edu/makers>) embedded in web pages created using *Dreamweaver* or *FrontPage*. This module had to be accompanied by a theoretical rationale justifying the design decisions and the tool choices on the basis of appropriate theoretical models of teaching and learning and the needs of learners in a particular learning environment. To support and provide scaffolding for the experience, reflection and critique of the technologies, students used their blogs of their reading, reflection and experiences, and the e-Portfolio. As part of the university’s mission to tailor course experience to employment, an e-portfolio facility, including a content templating feature, had already been developed and made available to students through the LMS. Unfortunately, since students made little use of this facility, information from this source is not discussed here.

As illustrated earlier in Table 1, the changes to assessment for the course described above, together with a number of more course-focused tool tutorials also made possible the change from weekly F2F lecture blocks to a more flexible teaching mode, using social networking software to establish students' 'social presence' (Garrison, Anderson, & Archer, 2000) as part of the course system. A wiki produced as part of a language course at the university was used as illustration of its uses before students were directed to Wikipedia and their own class wiki site (http://collaborate.ci.qut.edu.au/techllwiki/index.php/Main_Page). Reflective blog accounts were then established at *Blogger* on the web, accompanied by a discussion of the values and uses of blogs and some examples of these. The instruction on blog and wiki creation and maintenance was provided in an online synchronous session at the beginning of the first workshop using *Elluminate Live!* by an instructional designer in the Center for Distance Education at the Fairbanks campus of the University of Alaska. The purpose of this session was to enable students to experience first hand the process of participating in practical instruction synchronously at a distance, as well as to provide a step-by-step guide on the creation and maintenance of their blogs and instruction on how to edit a wiki page. This *Elluminate Live!* session was recorded and made available to students to access and replay at any time in the semester. It was also used by two students who were not able to attend the first workshop. In this way, the scene was set for them to participate in some drop-in sessions through the medium of chat in the LMS later in the semester.

Blog Data

On completion of this workshop, students then posted their comments and reactions to the workshop on their newly created blogs and began to shape the wiki to their own purposes through their contributions there. From the blog and wiki postings in the week following this workshop, it can be seen that it was this experience that began to shape the necessary trust and understanding of other students to trigger the formation of a collaborative class community which carried through and progressively strengthened during the rest of semester. Evidence of this is derived from the fact that, with no specification as to minimum numbers of blog, discussion forum, or wiki postings, students spontaneously established and maintained constant and persistent online presence using these tools. Table 4 illustrates the frequency of posting by different students over the 4-month duration of the course and the fact that even those students who made few postings, did so regularly month by month. Table 5 then shows the frequency of comments posted by students on the blog sites of other students, while Table 6 shows a tally of the number of postings by individual students to each other's blogs.

Discussion of the blog data in Tables 4, 5, and 6 must include some mention of ethnicity, interculturality, and communication styles. Students KB, OL, and SR were European-Australians, while KK was Japanese, LH Taiwanese, LY Chinese, and RB Filipino-Australian. Since few studies have as yet been carried out on these issues in the "blogosphere" (Ducate & Lomicka, 2005, Farmer & Bartlett-

Table 4

Frequency of Postings by Students to Their Own Blogs (by Month)

Contributor	March	April	May	June	Total
KB	7	4	7	7	25
KK	3	1	4	4	12
LH	4	4	2	4	14
LY	8	3	22	7	40
OL	21	16	9	9	55
RB	10	4	11	8	33
SR	4	2	4	5	15

Table 5

Frequency of Postings by Students to Other Students' Blogs (by Month)

Contributor	March	April	May	June	Total
KB	3	4	9	5	21
KK	0	0	3	4	7
LH	2	1	1	3	7
LY	1	0	5	2	8
OL	15	9	15	20	59
RB	3	7	18	14	42
SR	2	0	8	0	10

Table 6

Total Postings by Individual Students to Each Others' Blogs

By↓ To→	KB	KK	LH	LY	OL	RB	SR
KB	3	3	3	3	8	1	1
KK	1	5	1	0	1	0	0
LH	1	3	4	0	0	1	0
LY	5	0	0	0	1	1	0
OL	10	8	7	2	3	22	5
RB	6	7	6	3	16	6	3
SR	2	5	0	0	2	2	1

Bragg, 2005), findings presented here are necessarily tentative because inferences must be drawn from investigations of social presence (Tu, 2001) and findings in other forms of computer-mediated communication (CMC) such as discussion groups (Chase, Macfadyen, Reeder, & Roche, 2002; Reeder, Macfadyen, Roche, & Chase, 2004), email and chat (Thorne, 2003), the use of electronic "social contextual facilitators" (Kreijns & Kirschner, 2001), and general online course in-

teraction and participation structures (Roblyer & Ekhami, 2000; Tu & McIsaac, 2002; Alderman & Fletcher, 2005; Al-Harhi, 2005). The single major feature of effective interaction and formation of a learning community that emerges from these CMC studies is the importance of social presence: the number and frequency of communication actions learners instigate, the number and frequency of responses to others, and the kinds of communication actions these are. This latter feature is one that has been least researched and will be dealt with elsewhere.

In Tables 4 and 5, by far the most frequent posters on their own blogs are European-Australian and Chinese. However, when we look at the frequency of posting of comments on the blogs of others (which can be interpreted as a form of social interaction), the same European-Australian tops the list, but the pattern changes for subsequent places in the ranking, with the Filipino-Australian appearing to be much more interactive and responsive. When we remember that posting comments on blogs requires students to visit the blogs of other students systematically and regularly, read new postings, and then post their own response, this level of activity seems to indicate a much higher involvement in communication and therefore greater social presence. Until the data from Phase 3 and future semesters can be collected and analyzed, no conclusion can be drawn here about any relationship between cultural background and electronic social presence, though personality may be construed as an influencing factor when other data from the precourse questionnaire is added. Significantly, since the completion of the course, the Filipino-Australian has been the most prolific and active blog contributor.

Finally, the data in Table 6 show that the fewest comments posted to each other were by the Chinese, Japanese and Taiwanese students. In fact, the Chinese student, who posted the second highest number of items on her own blog did not post a single comment on the blogs of four other students, and neither did they post to hers. While this finding seems to bear further investigation, when asked informally for the reason, the Chinese student replied "just too lazy" Tu (2001) suggests, however, that Chinese students rely more on nonverbal cues and attend more to the affective side of communication. In an online environment, therefore, more modeling of interactive CMC behavior by the teacher and encouraging other students to give more timely responses may facilitate Chinese students' participation. Perhaps subsequent analysis of the learning preferences and strategies of these students will provide some clarification, as well as on-going investigation in subsequent semesters.

Focus Group Discussions

In the second last week of semester, the third and final workshop was held. In this session, students participated in problem-based focus group discussions (see focus group scenarios in Appendix B) which were videoed and transcribed. The transcriptions were searched for key words relating to student reactions to course participation, their recommendations for future students, as well as changes and refinements to the design. These focus groups were built around responses to a series of scenarios deriving from characteristics and reactions of current and pre-

vious students and features of the course design. Students were asked to analyze what problems were exhibited in each scenario and to give certain advice to these (hypothetical) people. In addition, students volunteered their own summary notes of the discussions to the coordinator for the purpose of the study.

A summary of the main issues emerging from the focus group discussions in the second last week is found in Table 7.

Table 7

Phase 2 Focus Group Questions and Summary of Student Responses

Discussion questions accompanying each scenario	Summary points emerging from student responses
What suggestions can you give this student? What do you see as being this student's problems in this unit? What can they do now to complete this unit? How would you suggest they tackle things differently if they could start again? If you could have given this student some advice before he/she enrolled in this unit, what would you say?	<ol style="list-style-type: none"> 1. The importance of hands-on practical application and preparation ("you gain confidence through doing," "you need prior preparation with computing skills") 2. The importance of scaffolding in becoming independent learners ("we need more structure and assessment deadlines") 3. The importance of building and maintaining active participation in the community of learners (collaborative inter-dependence) ("Take advantage of peer mentoring opportunities" [communities of practice], "Take advantage of multiple opportunities for mutual support" [affordances]) 4. Awareness of the importance of metacognitive strategies ("You need constant practice to improve computing skills, study skills, time management skills, prioritizing tasks")

Data from postings in student blogs, the discussion forum, and on the wiki reinforce the students' expressed need for assignment deadlines in order to help them stay on track. Postings on the community portal page of the wiki, where they decided to put hints and tips for other students also abound with suggestions for prioritizing time and complaints about their own lack of self-discipline in this area. The number and frequency of mutually supportive comments, pleas for help on specific issues, and advice gained from their own experience in student blogs is further evidence of the emergence of a cohesive and self-sustaining collaborative community. Full archives of student blogs and comments from Phases 2 and 3 can be accessed from the coordinator's teaching blog (<http://lifentheuniverse.blog.spot.com>). The Phase 2 wiki site can be accessed at http://collaborate.ci.qut.edu.au/techllwiki/index.php/Main_Page.

Phase 3: Refinements

As a result of the information collected in Phase 1 and especially Phase 2 of the study, a few modifications have been made to the Phase 3 implementation. These modifications fall into 3 main categories:

1. the reinstatement of deadlines and specified order for submission of assessment tasks

2. greater focus on theoretical underpinnings of pedagogical decisions relating to the use of technological tools for language learning.
3. an international collaborative connection with an undergraduate class at University of Calgary to extend the growth of student experience from participating as novices and experts in a closed community of learners to acting as collaborative mentors in an international community. The main aim in establishing this connection is to provide both classes of learners with a guided introduction to the transition from participation in a community of learners to a community of practice.

In their statements in response to “Things you would improve in the course” made in the anonymous evaluations as well as during the focus group discussions and on the discussion forum, students expressed their dissatisfaction with the lack of deadlines for assignments. They felt that without deadlines, they just “let things slide until there was no time left,” and, as a result, they felt they “didn’t do a proper job of the assignments.” Another major source of complaint was the lack of timely feedback from the first assignment task to assist with the development of the second. This was caused by the fact that, without deadlines, the first assignments were submitted so far into semester, there was not sufficient time for the coordinator to mark and return these with feedback before the second assignment was due. In Phase 3, therefore, deadlines have been re-instated for the two major assignments: the WebQuest and the online module. No stipulations have been made, however, about number of required posts on the wiki or the blogs; from the number and frequency of postings on these sites in both Phase 2 and 3, it does not seem necessary to do this in future offerings of this course. In addition to adding back the assignment deadlines, the timing of the workshops was also changed, with one in the first week of semester and the other two at 4-week intervals. This meant that all workshops had been completed by Week 8 of the semester, the first assignment had been completed and feedback returned to students, and students were then free to work on the final assignment in their own time. This system seems to have been much more successful, with all students completing their final assignment on or before time. Having the workshops clustered towards the early part of semester also meant that students formed and maintained a strong sense of community right from the beginning and felt quite comfortable with, and committed to, participating in the drop-in sessions remotely via chat, posting blog comments, and editing the wiki page simultaneously.

Since this semester is currently still in progress, data and results of Phase 3 will be reported in detail elsewhere. However, the timing of the workshops also encouraged students early on to form support networks among themselves, and this support then continued throughout. Since the critical theoretical readings were also posted prior to the workshops, students were able to read and reflect on this before actually commencing work on their final assignments and therefore had time to absorb more of the abstract concepts. This was particularly important for the majority of students for whom English was not their first language. Because of the differences in semester timing between Canada and Australia, it was not

possible to develop the desired collaboration with University of Calgary in both directions. However, Calgary students will be looking at the WebQuests produced by the Australian students as models of successful projects. Perhaps in Phase 4 of the life of this project, the new cohort of Calgary students will be able to reciprocate.

ANALYSIS AND DISCUSSION

In Phases 1 and 2, both teacher-designed and university-standardized questionnaires were used to elicit student perceptions of their competence and confidence in using various computer and internet applications and operations, their preferred learning styles and commonly used learning strategies, as well as some general profile and background information. Responses to these instruments were collated and analyzed electronically using tools associated with the LMS. In Phase 2, the anonymous questionnaire was replaced by problem-based student focus group discussions about their experiences in the new mode of teaching, their responses to it, and assessment items in the course. These focus groups were based on problem scenarios derived from reported student experiences in the previous semester. The interviews were videotaped, transcribed, and analyzed for key words relating to change, effectiveness of specific technological tools, interculturality, as well as attitudinal responses.

From an intercultural perspective during the course, the least interactive students in the blogs, discussion forum, and on the wiki were the Chinese, Taiwanese and Japanese students. Since there are two more Chinese students in the Phase 3 cohort, reasons for this may be illuminated by further investigation, based on Tu's (2001) findings mentioned above. Of considerable interest, both the Chinese and Japanese students have continued posting in their blogs after completion of the course. The Chinese student now uses her blog to continue a relationship with previous students and to communicate with her family and friends in China. The Japanese student is using his blog back in Japan to maintain friendships made in Australia and to create a dialogue about the use of blogs in particular for language teaching and learning. In contrast, the three European-Australians have continued to use their blogs for communication purposes, giving updates to whoever is reading their blogs with their postcourse experiences and course-derived understandings in using technology in their teaching. One student in particular, who is now in Japan, is using her blog to re-establish communication with the Japanese student. She has now created three blogs for different purposes and has incorporated the use of blogs in her teaching overseas. The students in the first workshop of Phase 3 were able to read these EFL student blogs and post comments back to them. This interaction served four purposes: (a) to provide the EFL students with a real purpose for writing for a real audience, (b) to affirm for the teacher the effectiveness of using blogs in language teaching and learning, (c) to provide a practical illustration and model for the new cohort of Masters students of how technology can be integrated in language teaching, and (d) to inject an element of excitement and immediacy into the Masters' students participation in their course.

In the area of assessment and software tools, a number of discrepancies emerged between the expectations and intent of the coordinator in selecting and proposing certain tools and the uses to which students put these tools. Table 8 illustrates some of the major features. The e-portfolio feature has been particularly underutilized in all phases of the course to date. This may be explained by the relatively restrictive nature of the university-provided template and hosting service which is still under development, or it may be that insufficient time and importance have been allocated to gaining an understanding of the potential affordances of e-portfolios in language teaching and learning. This is an avenue for development in future offerings of this course. In both Phase 2 and Phase 3, students expressed considerable concern and puzzlement about the uses and functions of the wiki and blogs. While the concept of a blog was illustrated by drawing the analogy with a learning diary or journal, the issues of privacy and security remained foremost in students' minds throughout lengthy discussions in workshops 1 and 2. Questions posed such as "can anyone read them, then?" and "so anyone can comment on my thoughts?" seemed to express their major concerns with the blogs. After the coordinator explained the potential of blogs through her own use of a blog to document her experiences in the course, modeled its uses between Workshops 1 and 2, and students began experiencing its potential for creating a community of support, they soon embraced the use of this tool.

Table 8

Discrepancies Between My Expectations and Those of the Students

Teacher's intent	Assessment piece	Student use
Reflection and peer feedback	Individual blogs	Loved these and shaped them to their own purposes, depending on their personalities and cultural backgrounds
Sharing hints and tips	Wiki site	Personal and social use, plus some formal
Formal and theoretical	Discussion forum	Intermittent posting; needed reminding
Tools, plus gain an understanding of constructivist transformation of learning	Individual WebQuests	Ranged from confusion to creativity; some focus on tools rather than learning
Skills and what you can do in constrained circumstances; applying sound pedagogical principles to traditional activity templates	Individual <i>Hot Potatoes</i> modules	Ranged from confusion to creativity; some focus on tools rather than learning

The wiki, however, remained a topic of concern up through Workshop 3. Consternation was expressed about the impermanence of the content when anyone could "just come in and edit what I write there." Another source of anxiety seemed to be how reliable any information could be on a wiki. Only after a period of weeks

observing changes and amendments made on Wikipedia did they begin to form an appreciation of its potential. It was really only after they experimented with some radical editing of the official wiki of the university and saw how quickly their changes were returned to the original (less than 6 hours on a weekend), that they embraced the concept. The fact that from the page's history they can always restore any page to its original form and content also allayed their concerns.

In the course design, a deliberate decision was made not to define the uses or purposes of any of the software tools, but rather to model their uses, provide readings and examples of possible environments for their use, and, in the case of Phase 3, illustrate and discuss the uses to which the tools were put by the previous cohort. This was done through links in the LMS, on the coordinator's blog, and in the course outline, both printed and electronic, to allow students freedom in finding their own affordances for these tools. It was therefore only after several experimental postings, receiving reactions to these, and a progressive evolution in understanding over the duration of the course that most students became comfortable with the understanding that they could shape the wiki to their own purposes since it was theirs to design, form, and present, that is, that it was *their* space. This has been one of the advantages of taking an experiential approach such as this - the realizations may come more slowly, but the learning seems to be deeper because it is more appropriate to their needs and fits more closely into their cognitive and affective schemata.

In terms of expectations of the course, in the pilot and second phase, students came in expecting more to be given to them and done for them, to be given pre-organized packages of learning. The teacher expected students to think for themselves, learn by themselves, read teacher notes and notifications, read the set and suggested readings, and experiment with the tools. There were a number of areas of mismatch here. Though it was not a major focus in this study, as illustrated in Table 7 above, students reported and demonstrated the benefits of having developed skills in working collaboratively with their peers. Also illustrated in the Table 7 focus group comments, students perceived the experience as collaborating as individuals, not just participating in teamwork, but rather coming in to the course with individual skills and expectations and emerging with differing individual outcomes while having experienced collaborative interreliance.

Because of the volume of information and the high learning curve for the software tools, students felt that they needed more time to achieve what they wanted than was available to them in a single semester. Most reported experiencing stress in all three phases, particularly with the amount of time necessary to acquire mastery of some tools. Some felt disappointed that they could not create a project to their own high expectations in the time available. These comments are evident in their blog postings, together with the positive, mutually supportive comments made to each other along the way. These sentiments are also obvious in the final discussion forum responses to the questions on autonomous learning and the value of WebQuests. A selection of comments representative of student impressions is set out in Table 9.

Table 9
Student Comments from the Discussion Forum

Questions	Comments
<p>What do you think are the main problems with self-directed learning? What do you think are the main difficulties in developing autonomy?</p>	<p>“On-line learning requires a lot of self discipline since deadlines can easily slide away without regular contact with physical (and even emotional) reminders. I have found this very challenging, to the point where the amount of reading on-line, the depth of understanding required, plus the completion of tasks where one is thinking and reasoning constantly has been very difficult.” (European-Australian)</p> <p>“I really do struggle with the unit’s approach of self-directed learning because I found it quite difficult to set deadlines and goals on my own. It is so easy to push things aside because there is no real incentive (ie. assignment deadline) to meet. On the upside, I have definitely learnt that I have bad procrastination habits and is in the process of changing this.” (Filipino-Australian)</p>
<p>What do you think are the best benefits of doing WebQuests, from a teacher’s point of view and from a student’s point of view?</p>	<p>“I think hands on stuff needs to be learnt hands on. Therefore, A LOT of my time was spent just trying to figure things out by fiddling with things and hoping not to break them. [...] So because I managed to find out a great deal of stuff by myself with not too much help, it was a quite a bit of a milestone each time I achieved something. I found myself often leaning back, punching the air in triumph and exclaiming “YES!!!!” after spending a good couple of hours on some tiny technical thingy. [...] In partuicluar webquests are great beacuse they are usually collaborative projects that help students develop content and linguistic knowledge/competency. It’s true that they take ages to create but they also take up quiet a bit of time to do, so it kinda balances out.” (European-Australian)</p> <p>“For teachers, the best benefits of doing WebQuests are to be aware of the process of teaching through researching, and to know the basic forms of teaching from the views of social constructivist perspective. In my previous teaching, I knew that teachers should not only be the knowledge teller, but also organizers, facilitators and problem solvers, but it is easy saying than done. What should we do in achieving this goal? I think WebQuest is the best solution. [...] The most beneficial thing in creating the WebQuest is the process of scaffolding knowledge, introduction, process, task, evaluation, conclusion and credit. Students learned knowledge not passively, but through active researching.” (Taiwanese)</p>

In Phase 2, there were considerably fewer students than in the previous phase who felt they needed more hands-on practice or hand-holding. Conversely, in Phase 2, demand increased for theoretical discussions, and students requested the re-instatement of assignment deadlines and a teacher-specified order of assessment tasks. In this respect, students took advantage of the learner centeredness of the course to choose to have some structure imposed by the coordinator

CONCLUSION

While the technology continues to develop, change, and expand its uses so unpredictably fast, teachers at all levels employing technology to mediate teaching and their learners' learning need to work on developing a flexible and adaptive pedagogy that suits their teaching philosophies and fits with the teaching and learning environments within which they work. As part of this flexibility and adaptability, we need to examine and reflect on the new personal and learning strategies that both learners and teachers themselves need to develop, especially from an intercultural perspective. The experiential modeling approach to familiarizing practicing teachers with technology discussed here seems to be a positive step towards engendering the competence and confidence in teachers to use new technologies with their learners to help their learners, in turn, to maximize their language learning. It has also been an exciting and tumultuous learning experience for the designer and coordinator.

From an intercultural perspective, further research is needed into the reasons for the low interaction rate among Chinese and Japanese students in online environments, particularly in communicating with each other. It would be useful to know, for example, whether it was the particular tools used in this study (blogs) that produced this phenomenon, or whether some other factors were operating such as individual learning styles or culturally induced slower uptake. Future studies will include early compilation of data on trends in culturally specific interactions with a view to implementing discussion group sessions focusing on these trends in particular. A problem-based scenario could also be developed for the purpose of eliciting individual students' responses and possible solutions to this issue.

The other major finding of this study was that strong interdependent learning communities formed among students through the experiential and task-based approach to learning in the course and in the absence of teacher intervention. Learners were forced to seek assistance from each other and to look through the range of tools and resources available to them (blogs, wikis, past students' work and contacts); to look beyond the classroom and what was provided in order to find solutions and answers that would help them. This was the impetus for the formation of a community of learners and also the first steps towards building bridges

In effect, the willingness of past students to establish and maintain contact with the next cohort of students—in sharing their experiences and now work-based expertise—created the venue and affordances for current students to perceive and experience the workplace connection. Alternatively, the enthusiasm and imagination of the current students allowed past students, now with classes of their own, to enrich their learners' classroom experience through expanded language contact for real purposes with real people. In the spirit of social constructivism, both novices and experts have learned and benefited together and from each other.

As we move towards offering an increasing range and variety of online, technology-mediated, collaborative, and self-access language-learning materials and activities for learners at all levels of educational provision, it is important to re-

member and consider the needs of learners in actually utilizing these materials. In this study, this consideration has led to some new opportunities being embraced—new technologies, tools, and scheduling. Choices and compromises have had to be made due to the shortness of the course, students' preferences, and institutional constraints. Finally, a number of adaptations have been successfully implemented to allow teachers and students to find and utilize the affordances of what is available, both technological and human, and to identify areas where more can still be done. A model is emerging of how some of these human, technological, and pedagogical features can be put together to achieve successful and enhanced learning. Certainly, the experience of this course shows that the formation and maintenance of communities of learners is critical to the reshaping of learning experiences for new teachers. It is the sense of mutual reliance and support developed through a technology-mediated collaborative learning community that seems to provide the scaffolding to bridge the gap between being a student teacher and becoming a member of a community of (teaching) practice.

REFERENCES

- Al-Harathi, A. (2005). Distance higher education experiences of Arab Gulf students in the United States: A cultural perspective. *The International Review of Research in Open and Distance Learning*, 6 (3). Retrieved May 11, 2006, from <http://www.irrodl.org/index.php/irrodl/article/view/263/406>
- Alderman, B., & Fletcher, S. (2005). *The role of interaction in enhancing achievement and student satisfaction in an online course: A rubric analysis*. Paper presented at the 2005 Conference of the Open and Distance Learning Association of Australia (ODLAA), Adelaide, South Australia. Retrieved April 4, 2006, from <http://www.unisa.edu.au/odlaconference/PDFs/130%20ODLAA%202005%20-%20Alderman%20&%20Fletcher.pdf>
- Anderson, T. (2005). *Distance learning—Social software's killer ap?* Keynote presentation at the 2005 Conference of the Open and Distance Learning Association of Australia (ODLAA), Adelaide, South Australia. Retrieved December 18, 2005, from <http://www.unisa.edu.au/odlaconference/PPDF2s/13%20odlaa%20-%20Anderson.pdf>
- Anderson, T., & Elloumi, F. (Eds.). (2004). *Theory and practice of online learning*. Athabasca, Canada: Athabasca University Press. Retrieved December 18, 2005, from http://cde.athabascau.ca/online_book
- Barber, W., & Wilkinson, M. (2005). *The change in academic skill base required for the transition from face-to-face teaching to blended delivery*. Retrieved December 18, 2005, from <http://www.unisa.edu.au/odlaconference/PPDF2s/69%20odlaa%20-%20Barber%20%20Wilkinson%20abstract.pdf>
- Bird, T., & Rosaen, C. (2005). Providing authentic contexts for learning information technology in teacher preparation. *Journal of Technology and Teacher Education*, 13 (2), 211-231.
- Blythe, S. (2001). Designing online courses: User-centered practices. *Computers and Composition*, 18 (4), 329-346.

- Bower, J., & Christensen, C. (1995) Disruptive technologies: Catching the wave. *Harvard Business Review*, 17 (1), 43-45.
- Brook, C., & Oliver, R. (2005). Exploring pre-existing factors and instructor actions influencing community development in online settings. Paper presented at the 2005 Conference of the Open and Distance Learning Association of Australia (ODLAA), Adelaide, South Australia. Retrieved April 4, 2006, from <http://www.unisa.edu.au/odlaaconference/PDFs/40%20ODLAA%202005%20-%20Brook%20&%20Oliver.pdf>
- Brown, A., & Voltz, B. (2005). Elements of effective e-learning design. *The International Review of Research in Open and Distance Learning*, 6 (1). Retrieved March 5, 2007, from <http://www.irrodl.org/index.php/irrodl/article/view/217/300>
- Chase, M., Macfadyen, L., Reeder, K., & Roche, J. (2002). Intercultural challenges in networked learning: Hard technologies meet soft skills. *First Monday*, 7 (8). Retrieved March 5, 2007, from http://www.firstmonday.org/issues/issue7_8/chase/index.html
- Christensen, C. (1997). *The innovators dilemma*. Boston: Harvard Business School Press.
- Cochrane, C. (2005). Mobilising learning: A primer for utilising wireless palm devices to facilitate a collaborative learning environment. In *Proceedings of the 2005 ASCILITE Conference*, Brisbane. Retrieved April 4, 2006, from http://www.ascilite.org.au/conferences/brisbane05/blogs/proceedings/16_Cochrane.pdf
- Ducate, L., & Lomicka, L. (2005). Exploring the blogosphere: Use of web logs in the foreign language classroom. *Foreign Language Annals*, 38 (3), 410-421.
- Dvorak, J. C. (2004). The myth of disruptive technology. *PCMag.com*. Retrieved December 14, 2005, from <http://www.pcmag.com/article2/0%2C1895%2C1628049%2C00.asp>
- Farmer, J., & Bartlett-Bragg, A. (2005). Blogs @ anywhere: Hi-fidelity online communication. In *Proceedings of the 2005 ASCILITE Conference*, Brisbane. Retrieved April 4, 2006, from http://www.ascilite.org.au/conferences/brisbane05/blogs/proceedings/22_Farmer.pdf
- Felix, U. (2001). *Beyond Babel: Language learning online*. Melbourne: Language Australia.
- Felix, U. (2002). The web as a vehicle for constructivist approaches in language learning. *ReCALL*, 14 (1), 2-15.
- Garrison, R., Anderson, T., & Archer, W. (2000). Critical enquiry in text-based environment: Computer conferencing in higher education. *The Internet in Higher Education*, 2 (2-3), 87-105.
- Gibson, J. J. (1986). *The ecological approach to visual perception*. Hillsdale, NJ: Lawrence Erlbaum.
- Hannon, J., & D'Netto, B. (2005). *Cultural perspective in online learning*. Paper presented at the 2005 Conference of the Open and Distance Learning Association of Australia (ODLAA), Adelaide, South Australia.
- Hoven, D. (2006). Communicating and interacting: An exploration of the changing roles of media in CALL/CMC. *CALICO Journal*, 23 (2), 223-256.
- Hoven, D., & Sussex, R. (in press). CALL: Disintegration, integration, reintegration. *CALL Journal*.

- Hughes, J. (2005). The role of teacher knowledge and learning experiences in forming technology-integrated pedagogy. *Journal of Technology and Teacher Education*, 13 (2), 277-302.
- Kanuka, H., & Anderson, T. (1999). Using constructivism in technology-mediated learning: Constructing order out of the chaos in the literature. *Radical Pedagogy*, 1 (2). Retrieved January 18, 2006, from http://radicalpedagogy.icaap.org/content/issue1_2/02kanuka1_2.html
- King, K. P. (2002). Educational technology professional development as transformative learning opportunities. *Computers and Education*, 39 (3), 283-297.
- Kirschbaum, D. (2002). *Introduction to complex systems*. Retrieved April 4, 2006, from <http://www.calresco.org/intro.htm>
- Knapp, L., & Glenn, A. (1996). *Restructuring schools with technology*. Boston: Allyn & Bacon.
- Kreijns, K., & Kirschner, P. (2001). *The social affordances of computer supported collaborative learning environments*. Paper presented at the 31st ASEE/IEEE Frontiers in Education Conference, Reno, Nevada.
- McLoughlin, C. (2001a). *Crossing boundaries: Curriculum and teaching implications of culturally inclusive online learning*. Paper presented at AARE 2001. Retrieved December 18, 2005, from <http://www.aare.edu.au/01pap/mcl01720.htm>
- McLoughlin, C. (2001b). Inclusivity and alignment: Principles of pedagogy, task and assessment design for effective cross-cultural online learning. *Distance Education* 22 (1), 7-29.
- McLoughlin, C., & Oliver, R. (2000). Designing learning environments for cultural inclusivity: A case study of indigenous online learning at tertiary level. *Australian Journal of Educational Technology* 16 (1), 58-72.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle.
- Passi, B., & Mishra, S. (2004). Selecting research areas and research design approaches in distance education: Process issues. *The International Review of Research in Open and Distance Learning*, 5 (3). Retrieved March 5, 2007, from <http://www.irrodl.org/index.php/irrodl/article/view/203/285>
- Reeder, K., Macfadyen, L., Roche, J., & Chase, M. (2004). Negotiating cultures in cyberspace: Participation patterns and problematics. *Language Learning & Technology*, 8 (2), 88-105. Retrieved March 5, 2007, from <http://ilt.msu.edu/vol8num2/reeder>
- Reeves, T. (1996). Technology in teacher education: from electronic tutor to cognitive tool. *Action in Teacher Education*, 17 (1), 74-78.
- Reiner, R. (2005). *The influence of media on the learning process—are we evolving or just revolving?* Paper presented at the 2005 Conference of the Open and Distance Learning Association of Australia (ODLAA), Adelaide, South Australia. Retrieved December 18, 2005, from <http://www.unisa.edu.au/odlaconference/PPDF2s/124%20odlaa%20-%20Reiner.pdf>
- Richardson, V., & Placier, P. (2001). Teacher change. In V. Richardson (Ed.), *The handbook for research on teaching* (4th ed.) (pp. 905-947), Washington, DC: AERA.

- Roblyer, M., & Ekhami, L. (2000). How interactive are YOUR distance courses? A rubric for assessing interaction in distance learning. *Online Journal of Distance Learning Administration*, 3 (2). Retrieved August 23, 2006, from <http://www.westga.edu/~distance/roblyer32.html>
- Scholfield, K. (2005). *The Magic Umu? Open and distance learning in three Pacific Island countries*. Keynote presentation at the 2005 Conference of the Open and Distance Learning Association of Australia (ODLAA), Adelaide, South Australia.
- Steketee, C. (2006). Modelling ICT integration in teacher education courses using distributed cognition as a framework. *Australasian Journal of Educational Technology*, 22 (1), 126-144.
- Thorne, S. (2003). Artifacts and cultures-of-use in intercultural communication. *Language Learning & Technology*, 7 (2), 38-67. Retrieved March 5, 2007, from <http://llt.msu.edu/vol7num2/thorne/default.html>
- Tu, C. H. (2001). How Chinese perceive social presence: An examination of interaction in online learning environment. *Education Media International*, 38 (1), 45-60.
- Tu, C., & McIsaac, M. (2002). The relationship of social presence and interaction in online classes. *The American Journal of Distance Education*, 16 (3), 131-150.
- Van Lier, L. (2000). From input to affordance: Social-interactive learning from an ecological perspective. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 245-259). Oxford: Oxford University Press.
- Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method*. Buckingham: Open University Press.
- Willing, K. (1989). *Teaching how to learn. Learning strategies in ESL. A teachers guide*. Sydney: National Centre for English Language Teaching and Research.
- Zemsky, R., & Massey, W. (2004). Thwarted innovation. What happened to e-learning and why. Retrieved July 24, 2006, from <http://www.irhe.upenn.edu/WeatherStation.html>

SOFTWARE

Atomic Learning: <http://www.atomiclearning.co.uk>

Blogger: <http://www.blogger.com/start>

Illuminate Live!: <http://www.illuminate.com>

Hot Potatoes: <http://hotpot.uvic.ca/>

Swarthmore Makers: <http://lang.swarthmore.edu/makers/>

WebQuests: <http://webquest.sdsu.edu/>

Wikipedia: http://en.wikipedia.org/wiki/Main_Page

- chatting ___ Yes ___ No
- internet telephony ___ Yes ___ No
- internet publishing (blogs etc) ___ Yes ___ No
- research ___ Yes ___ No
- other: (please state) _____ ___ Yes ___ No

2.3 Can you perform the following computer technical skills?

- touchtype ___ Yes ___ No
- click and drag with a computer mouse ___ Yes ___ No
- open a computer program, exit, save, print ___ Yes ___ No
- access different computer drives/peripherals ___ Yes ___ No

2.4 Indicate your level of confidence with the following computer activities.

- | | | | | | | | |
|----------------------------------|-----|---|---|---|---|---|-----------|
| using Help function in a program | low | 1 | 2 | 3 | 4 | 5 | very high |
| asking others for technical help | low | 1 | 2 | 3 | 4 | 5 | very high |
| using a new software program | low | 1 | 2 | 3 | 4 | 5 | very high |
| searching the Net | low | 1 | 2 | 3 | 4 | 5 | very high |
| recording and listening to self | low | 1 | 2 | 3 | 4 | 5 | very high |
| using e-mail | low | 1 | 2 | 3 | 4 | 5 | very high |
| sending attachments by e-mail | low | 1 | 2 | 3 | 4 | 5 | very high |

2.5 Have you used any computer language learning software? ___ Yes ___ No
If no, please go to question 2.6

2.5.1 What was the program? _____

2.5.2 What actions did it require you to do? (click on your choice, type, drag, other)

2.5.3 Which of the following tasks did you complete? (tick any applicable skills).

- | | | | | | |
|--------------------|-----|---------------------|-----|--------------------|-----|
| Read short text | ___ | Read extended text | ___ | Copy pronunciation | ___ |
| Write short text | ___ | Write extended text | ___ | Speak | ___ |
| Listen and respond | ___ | View and respond | ___ | Navigate sites | ___ |

2.6 Please describe how you feel about using computers to help learn a language.

2.7 Other information: if there is anything else you'd like to explain about your computer experiences and capabilities, please note them here.

Section 3 - Learning Styles and Strategies

Please respond to these statements by choosing one (1) of the following five (5) responses and then writing its corresponding number next to the statement in the space provided.

0. The statement is not relevant to me.
1. Never, or almost never true of me. (0-10% of the time)
2. Usually not true of me. (up to 50% of the time)
3. Somewhat true of me. (about 50% of the time)
4. Usually true of me. (over 50% of the time)
5. Always or almost always true of me (90-100% of the time)

For example: 2 I learn best by reading.

3.1 Learning Styles

- I like to learn by reading.
- I like to complete set written exercises.*
- I like to listen to and use cassettes.
- I like to learn by playing language games.
- I like to talk in the new language.
- I like to use authentic texts (magazines, newspapers, television, movies)
- I like to write everything down.
- I like to have my own text book.
- I like the teacher to explain everything to us.
- I like to work things out for myself.
- I like the teacher to give us problems to work on.
- I like the teacher to tell me all my mistakes.
- I like the teacher to let me find my mistakes.
- I like to study alone.
- I like to learn by working in pairs.
- I like to learn in a small group.
- I like to learn as part of a whole class group.
- I like to study grammar.
- I like to learn many new words.
- I like to practice the sounds and pronunciation.
- I like to learn words by seeing them.
- I like to learn words by hearing them.
- I like to learn words by doing something.

3.2 Learning Strategies

Please respond to these statements by choosing one (1) of the following five (5) responses and then writing its corresponding number next to the statement in the space provided.

- 0. The statement is not relevant to me.
- 1. Never, or almost never true of me. (0-10% of the time)
- 2. Usually not true of me. (up to 50% of the time)
- 3. Somewhat true of me. (about 50% of the time)
- 4. Usually true of me. (over 50% of the time)
- 5. Always or almost always true of me (90-100% of the time)

For example: 2 I look for new friends who speak the target language so that I can practise it.

- I think of relationships between what I already know and new things I learn.
- I put new words in a sentence or use them in a conversation so I can remember them.
- I make associations for new words (pictures, ideas, images, feelings, potential situations) to help me remember them.
- I remember things by remembering their location on the page, board, or street sign where I first saw them.
- I say or write what I am learning several times.
- I write in the new language as much as possible.
- I try to find patterns in the new language.
- I find the meaning of a word by dividing it into parts that I understand.
- I try not to translate word-for-word.
- I make notes or summaries of what I hear or read.
- I make notes or summaries of what I learn in class.
- If I find something difficult to understand, I try to guess what it means in context.
- If I don't know how to say something, I use a word or phrase that means the same thing.
- I try to find as many ways as I can to use my new language.
- I think about my progress in learning the new language.
- I have clear goals for my learning.
- I push myself to speak the new language even when I am afraid of making a mistake.

3.3 Other information: if there is anything else you'd like to explain about your preferred learning strategies and styles, please note them here. (e.g., ways you like to learn or positive learning experiences you have had.)

Section 4 - Course Expectations

4.1 What do you think this course will be about? _____

4.2 What do you hope to learn in this course? _____

4.3 What do you hope to be able to do by the end of this course? _____

4.4 What do you want to be able to do with what you learn here? _____

4.5 What areas covered by this course are you particularly interested in? _____

4.6 What other courses have you studied or are you studying in this School? _____

4.7 What other subjects do you want to do next (after this course)? _____

Thank you for your responses.

NB: The scale used for question 3.1 and the statements for question 3.2 were adapted from 'Strategy Inventory' in Oxford (1990, pp. 293-296). The statements for question 3.1 (except *) were adapted from Willing. (1989, pp. 102-103).

APPENDIX B

Problem-based scenarios for Focus Group discussions

Scenario 1 Han

Han is a friendly, but quiet young man who has taught in a couple of private English programs in 1 or 2 Asian countries while on his long-planned working holiday. He became very good at English as a younger student, by chatting to every foreign tourist or staff member he came across, but worries that his proficiency won't be good enough to get the job he wants in a good English university program when he returns home. He uses his mobile phone to send sms messages and make calls, and keeps in touch with his family back using chat and his webcam. He decided to enrol in 618 because he felt comfortable using the technology and knows that at the universities where he could get a good job, technology is widely used to teach more students, especially those who can't necessarily make

it to classes regularly or have to travel some time to get to campus. Now, however, he is having trouble finishing his 618 assignments. He isn't sure how to adapt the technology to teaching purposes. He also worries that his English is not good enough to write English assignments for student use and that students will not apply themselves to the tasks he will set.

What suggestions can you give Han?

What do you see as being Han's problems in this unit?

What can he do now to complete this unit?

How would you suggest he tackle things differently if he could start again?

If you could have given Han some advice before he enrolled in this unit, what would you say?

Scenario 2 Josh

Josh is an enthusiastic man in his late-20s. He left Australia as soon as he finished his Grad Dip in teaching and has taught in a few different countries in the world where he was travelling. Now he has decided to get some of the high-paying jobs in education, and feels confident that he has the teaching experience to do this. He realises that the technology he has been using for communication and job-seeking can also probably be used to teach. He wants to get his piece of paper as quickly as possible so he is taking a full workload, though he also has 2 part-time jobs to pay for fees and living expenses. Although he started out well and feels confident that he can do this, he seems to be slipping behind. He still hasn't completed the first assignment, though he has been "helping out" some of the other students with the technical side of things for their assignments. He keeps touch with some of the other students electronically, but is missing most of the assessment commitments because of work commitments and the deadlines of other units he is taking.

What suggestions can you give Josh?

What do you see as being Josh's problems in this unit?

What can he do now to complete this unit?

How would you suggest he tackle things differently if he could start again?

If you could have given Josh some advice before he enrolled in this unit, what would you say?

Scenario 3 Shinta

Shinta is a young woman, from a traditional educational background, who has come straight from an 18-month job in a private English school where she taught discrete-skill classes using a set textbook and materials. She had never participated in planning or organising classes or what would be taught in them. When she was given her schedule, she taught her classes from the appropriate materials, designated by the Director of the program, and if she needed help, she asked him for instructions. She enrolled in this program to help her get promotional positions. In 618 she is having trouble working out what to do and is falling behind. Now she is worried that she is running out of time to learn the skills and even to

get the work done - whatever it is. She still doesn't know what she is supposed to do for her 618 assignments. Her other subjects are very demanding and have strict deadlines and so she has been concentrating on them and hoping that someone will notice she is having trouble.

Questions

What suggestions can you give Shinta?

What do you see as being Shinta's problems in this unit?

What can she do now to complete this unit?

How would you suggest she tackle things differently if she could start again?

If you could have given Shinta some advice before she enrolled in this unit, what would you say?

Scenario 4 Jeni

Jeni is quite a bit older than many of the other 618 participants. She has taught mainly in Australia, in migrant education programs which have been fairly poorly resourced. When she was younger, she taught in a couple of Asian countries for a couple of years and had some broad experiences of different cultures and teaching conditions. Jeni took 618 because she thought it was about time she tackled this "technology thing" and learnt how to use the sorts of tools that her children and some of her students are quite familiar with. In fact, earlier in the semester, she was offering advice about time management and planning to some of the younger students who are the same age as her 2 children. Now, however, she is struggling with the technical skills. It all seems to take much longer than she anticipated and every time she plans out how to complete a task in good time, all the technical bits and pieces catch her out and then she panics and loses confidence.

What suggestions can you give Jeni?

What do you see as being Jeni's problems in this unit?

What can she do now to complete this unit?

How would you suggest she tackle things differently if she could start again?

If you could have given Jeni some advice before she enrolled in this unit, what would you say?

