

**Listening on the Web:
An Aural "Bridge" for ESL Learners**

by

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ABSTRACT

Interest is widely acknowledged as the prime motivator in listening. The Web, as home to the broadcast media on an enticing on-demand basis, offers second language learners a choice of interesting listening. But, this study maintains, learners can't take advantage of that choice without tools to bridge their comprehension gaps. In an attempt to bridge that gap, a 'prototype' web template called the "Bridge" @ <<http://www.callcentre.bc.ca/online>> was co-designed by the researcher and Catouzer Inc. using licensed CBC Radio interviews to simulate a lesson interface to the authentic web listening world, thus providing structure where there was none. This research examines whether the Web as a cultural context of choice—"nowness"—gives students more confidence in their own agency to acculturate, and if that agency, in the form of being able to control the *form* language takes, stimulates more awareness. In short, does listening on the Web lead to acquisition?

Five international upper level ESL students from a private school in Vancouver were recruited to participate in seven autonomous listening enrichment sessions. Prior to the study they filled out a Listening Habits Survey, and were pre and post-tested using a truncated version of a TOEFL Listening Test. Data collection was on 8 mm video; students answered questionnaires on camera alone and/or were interviewed by the researcher face-to-face. The subsequent 'thin' ethnographies were analyzed using Constellations, a Hypercard software application for chunking digital data. The stories that emerge address the students' interaction with the web site environment, illuminating their learning styles and listening strategies, and in the end corroborating what is often anecdotal observation that yes, students do enjoy and value using "tools to think with".

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DEDICATION

to Angie

CHAPTER ONE INTRODUCTION

It is a well accepted view that language and culture teaching must be clearly linked (Byram, 1991), for in acquiring language, we acquire culture. The World Wide Web, 'the Web', is not only an increasingly important purveyor of world cultures, but in many North American lives it has, as a tool, become an integral part of our culture, primarily as a tool of communication, as well as an information source and hence, an education re/source. For this researcher the Web 'culture' became the place to create an instructional model/template for the facilitation of ESL learners as autonomous listeners, metaphorically and literally speaking—a "Bridge" to the target language community/culture. What follows is a chronicle of the research and analysis underpinning the creation and testing of the multimedia listening website, the Bridge @ <<http://www.callcentre.bc.ca/online>>.

Contextualizing the Study

A Student Focus

At this time, two years ago, I was tutoring Angie, a single, thirty-two year old children's art specialist from Korea. Angie was studying English in Vancouver for a year, first at an international school and then later at a college. She was sharing apartments with different room mates, some Canadian, some Korean, taking pottery classes in the community and volunteering at the Vancouver Art Gallery's monthly Art for Children program. Angie was an exceptionally mature language learner intent on immersing herself as much as she could in Canadian lifestyle and culture through classes and native contact, and yet was seeking out a tutor—me. What Angie wanted was one-to-one correction, and/or individualized learning.

We met twice a week, talked about art, the movies we had seen and worked on Angie's

listening comprehension. One of my listening sources was a CBC Ottawa/Ottawa Board of Education publishing project called, "Good Morning, Canada! Literacy Through Listening," a workbook and cassette package comprised of local CBC Ottawa radio interviews on a range of timeless topics. As an ESL listening skill textbook using authentic speech, the approach was not unique, except that when Angie listened I let her read the transcript of the spoken speech at the same time. Her positive response to this seemingly inconsequential approach of reading-while-listening (RWL) peaked my curiosity as to how engaging the practice could be in a hypermedia environment¹ that she could control, and one that would correct her. If it worked for Angie, I reasoned, why not a World Wide Web audience?

It is language learners like Angie whom I had in mind when I first conceived of the Bridge using 'value-added' CBC² radio interviews. The five International students who volunteered for the study (two Brazilian males, two Korean males and one female) were all University students in their early twenties. They were either in the Business English program or taking TOEFL classes at Westcoast English Language Center (WELC) in Vancouver, so were assessed at an upper level proficiency. When we worked together in June of 1997 the five students were at varying stages of completing their immersion stay in Vancouver (six months to a year) and were therefore, at varying stages of fluency.

Like Angie, the sample group were more proficient readers than listeners. They volunteer-

¹Hypertext is a representation of multiple and flexible links between discrete pieces of data which allows users to navigate among multiple paths through a network of chunks of information and to build and store their own links. When the data to be linked include video, audio, and graphic as well as textual information, the representation is called multimedia. (Magdalene Lampert and Deborah Lowenberg Ball, cited in Goldman-Segall, 1998, p. 122)

²I was a CBC Radio writer-broadcaster for six years, so am quite familiar with the programming and was able to secure a licensing agreement for the site interviews for the duration of this study. CBC <<http://www.radio.cbc.ca>> is a pioneer in new media technologies, launching InfoCulture June 15th, 1998 and integrating all their news sites in the fall.

ed because they wanted extra listening exposure; they wanted to be able to understand for example, the humour on *Seinfeld*, a popular American television sitcom. The average *Seinfeld* conversation rate is “210 words per minute (wpm); radio and interview speech is between 160-190 and University lectures 140 wpm” (Rubin, 1994, p. 200). As a group the students could generally understand the type of narrative and TOEFL lecture tapes they were exposed to, but “authentic” native speech was too fast, the manner of speaking relaxed³, as opposed to careful, and it was peppered with idiomatically embedded cultural meanings that eluded them. Several of the students already had television with subtitles closed captioning, which has shown to “result in both better comprehension and subsequent better productive use of the foreign language” (Borras & Lafayette, 1994, p. 70); this project builds on that research.

The hypermedia web environment in addition to providing the transcript as a form of ‘scaffolding’ (Liebermann & Linn, 1994) offers valuable links to background information, glossaries, comprehension checks, etc., extra exposure to assist the learner in developing strategies that ‘bridge’ the fluency gap. Chapelle (1997, p. 28) suggests that “we have to design activities that create opportunities for comprehension of linguistic input through modification of the normal structure of interaction”—textual transcription being one modification that the site provides, and the focus of this study.

Web Technology

RealAudio

The multimedia language learning tools that I am emulating, i.e., transcripts etc. already

³ A term used in the textbook, *Whaddaya Say*, that refers to the relaxed or reduced sound of spoken English as opposed to its written form.

exist on expensively produced interactive videodisc programs⁴ and CD-ROMs⁵, but are only now being pioneered on the updatable Web. I am not alone in recognizing the interesting language instructional possibilities of “synchronized multimedia” with RealAudio now and RealVideo appearing soon (Godwin-Jones, 1997).

With the arrival of Progressive Networks’ RealAudio on the Web in April of 1995 network broadcasters, like the CBC, soon discovered the Web and its anytime/anywhere market potential. “RealAudio is running now on 10 to 12 million desktops and thousands of servers, transmitting everything from live NBA games and ABC newscasts to the burgeoning output of garage-based guerrillas” (Reid, 1997). Those desktops aren’t just in homes or classrooms. According to a recent MCI Communications study (Vancouver Sun, Aug. 1997) “the percentage of all computer users who hooked up to the Internet using computers in places like libraries, community centres, churches, stores, cafés, museums, hospitals, hotels or airports increased to 12 per cent from seven per cent between spring 1996 and spring 1997.” These numbers, which speak to the democratization of information, are expanding exponentially. With RealVideo technology rapidly developing technology gurus like Glaser⁶ predict that cyberspace will be *the* content rich domain.

Television is our most ubiquitous, hyped, and heeded medium. It's Moby Dick to radio's school of minnows, drawing more than \$35 billion in ad spending annually in the United States, plus billions more around the globe. But more to the point, TV is now on a collision course with the PC - a modest little \$125 billion industry. Companies on both sides of the fence are jumping into the convergence game, bidding up the stakes to dizzying levels. (Reid, 1997, p. 8)

⁴ *A la rencontre de Philippe* - French interactive videodisc program for Macintosh environment produced by Gilbert Furstenberg at MIT in 1993 and the subject of a 1998 UBC doctoral dissertation (Garold Murray, 1998).

⁵ *English Easy--Conversation*, Greenwood Multimedia, Richmond, British Columbia.

⁶ Rob Glaser, founder of Progressive Networks, creator of RealAudio and RealVideo.

As research indicates (Rubin, 1994; Gruba, 1997), and the data from my case studies corroborates, the medium of choice for language learning, if available, would be on-demand television with all the attendant interactive tools of the PC/CD-ROM world, i.e. glossaries, grammar checks, transcripts, etc., all that the convergence of TV and PC's promise. Our continuing romance with the visual world isn't surprising when you consider that "as much as 93% of the total meaning of any interaction comes from nonverbal, often visual clues" (Oxford, 1993, p. 207). Net-able television isn't here...yet, but interactive RealAudio is.

The 'prototype', created in collaboration with Trevor Baker⁷ is not linked to current or archival broadcasts but features seven timeless CBC radio interviews dubbed off-air, digitized and stored on a server. This approach was taken to ensure broadcast quality, but as site streaming compressions are scaled up, the next interface challenge will be to access broadcast files in real time and deconstruct them using the site's template features.

A recent article (Biemiller, 1997) discussing template use in a Russian language class at Wabash College in the United States claims that multimedia computer programs that can be cobbled together in a few hours by professors or language-lab staff could change the way colleges teach foreign languages. These new tools allow language lessons/paths to be custom-tailored to student interests or skill levels and therefore, I maintain, facilitate our goal as educators to create autonomous learning environments (Holec, 1981). As Chun & Plass (1997, p. 72) note, "the primary research question is not whether multimedia instruction is effective, but rather under what conditions and for whom."

This study anticipates that online audio sites like the Bridge, <<http://www.callcentre.bc.ca/online>> could become a medium of content choice for upper level language learners desiring

⁷Director of Technology, Catouzer, Inc., Vancouver, B.C.

more controlled exposure to either the culture they are immersed in or studying at a distance, and that they will value these kinds of templates that assist in making the input more comprehensible (Krashen, 1982) and the process of acculturation⁸ smoother (Schumann, 1978).

Webness - Connected Intelligence

In his book, *Connected Intelligence*, Derrick de Kerckhove, Professor in the Department of French and Director of the McLuhan Program in Culture and Technology at the University of Toronto, claims that the digitization of content and the networking of ideas is going to fundamentally change us as human beings. This study argues that whatever the outcome of this convergent web technology it will herald a positive advancement for world communication, for the listening web site owes its very genesis, i.e. the repositioning of media, to the existence of a web of connected intelligences and a belief that the planet's connected intelligence, in whatever database delivery format, will perhaps be its saving grace. Such an enactivist view resonates with De Kerckhove's (1997, p. xxix) perspective that "the main technologies of today's information systems are aids to processing", and that we are moving from the era of "replay" to that of "remake". De Kerckhove maintains that we are developing "computer-assisted cognitive habits and computer-assisted forms of collaboration—new forms, in fact, of connectedness." In her book, *Life on the Screen*, Turkle supports this interpretation:

Intelligence, typically is an effect of emergence, and the expectation created by the Web could be that new kinds of intelligence are beginning to emerge. The term webness, connectedness, means deriving power and qualities from optimal exploitation of network connectedness. (Turkle 1995, p. 145)

The prototype ESL listening web site is a first attempt at exploiting the Web's

⁸For Schumann, acculturation meant the social and psychological integration of the learner with the target language group.

connectedness, principally for the development of schemata as it relates to the sound sources of the lesson. Within the confines of each lesson students are free to make their own web connections beyond the ones embedded.

Second language acquisition (SLA) theories (Ellis, 1994) assume that exposure to authentic listening and reading text facilitates an implicit process through which new language and linguistic rules become internalized and can then be automatically reproduced. Given the rationale for first providing multimedia within a “Negotiated Interaction Model of Second Language Acquisition” (Brett, 1997, p. 48), the site is conceived as a helpful aural bridge to the Web’s vast connected “authentic” sources.

In a snapshot comparative study of the effects of the use of multimedia on listening comprehension using EFL CD-ROMS, Brett (1997, p. 48) found that the “features of multimedia which might be supposed to facilitate comprehension and learning are valued by learners ... for example, the amalgamation of features on one screen and feedback (instant checks or crosses for response to tasks).” The results of Brett’s (1997, p. 49) study imply that “the investment in and development of multimedia software applications for listening do achieve a payoff in terms of quantifiable learner success rates and learner-perceived learning gains.”

According to Dunkel (1991, p. 20) “many CALL researchers eschew conducting media comparisons that use the traditional experimental “treatment” model of research.” The fear is that it will lead to “technocentric” thinking (Papert, 1987) objectifying computers as agents that act directly on learning. Papert (Dunkel, 1991, p. 20) contends that this view mitigates the importance of the central components of the educational situation—the people and the classroom culture, and the contents of the educational software.”

The culture this study addresses is web culture. The purpose of the inquiry is to discover

how the use of hypermedia tools allows second language learners to actively participate in decoding their target culture (accessed on the web) thereby, feeling more included. Whether it is the Web, CD-ROM or Intranet delivering the content, the principles of “interactivity, hypertextuality and connectedness operate across the board in all concerns involving technology and culture” De Kerckhove (1997, p. xxxii). It is this study’s contention that this new form of digital connectedness with its images and popular content when connected to a learning/listening purpose, such as the Bridge, can trigger the transfer of information from the first language background to the second. In doing so I am making the assumption that access leads to interaction.

The First Law of Interactivity is that the user shapes or provides the content, either by taking advantage of nonlinear access to make program selections, or by actually taking full responsibility for the content as a bona fide content provider. This is by no means a trivial distinction: Marshall McLuhan once quipped, “If the medium is the message, then the user, really, is the content. (De Kerckhove, 1997, p. 9)

This distinction of the user as content is important to the more long range conception of the site as a user friendly template for teachers and students to create a collaborative database of listening lessons. Using the template as I did in the creation of these first seven lessons, students and teachers can easily input their choice of sound files off the Web or other sources, deconstruct them into vocabulary/comprehension checks, so that the database that evolves is meaningful content. Such interactivity casts users as producers, or “prosumers”; a communal, collaborative, “connected” concept, in harmony with Bruner’s (1996, p. 84) view that “human learning is best when it is participatory, proactive, communal and collaborative, and given over to constructing meaning rather than receiving them.”

It is this quest for participatory Computer-Assisted Language Learning (CALL), specifically listening materials development, that has been the impetus of the project and leads

me to wonder if the site's 'back end' template <<http://www.callcentre.bc.ca/online/admin>> were made available to second language teachers and learners would it promote agency? Would other teachers be motivated enough to train and learn how to use the tools to create customized online lessons that address the main requirement of listening -- interest? Could/would students be open to contact assignments that had them recording everyday interactions or interviews and then creating their own listening environments? And if they were, would this interactive "remaking" (De Kerckhove, 1997) create meaningful exchanges that would measurably improve their listening?

As Goldman-Segall (1998, p. 10) claims: "our tools are continually working with us to recreate our cultures, and our cultures are being reshaped by this interaction, which, in turn, reshapes our tools."

Agency

In 'situating' myself as co-designer/instructor (Lave & Wenger, 1991; Bruner, 1996; Bakhurst, 1996) I am in effect acting as a human agent between web content and the students. I am, in Laurel's (1993, p. 98) words, "actively collaborating with programs in the shaping of human-computer experiences." I refer to this project broadly as action research, putting theory into practice (Kemmis, 1993) but the approach taken is as an emergent interactionist, "where the mental development is traced as the outcome of an interplay between biological and cultural forces" (Bakhurst, 1996, p. 212). In other words, I know that Web/computer technology is here to stay as a cultural force (De Kerckhove, 1997) and, to be colloquial, feel that it is hotwired to my own body chemistry.

Knowing this intuitively and intrinsically, I have acted in exploring its power as a tool or

“prosthetic device for constructing desire” (Turkle, 1984, p. 56). The desire, on the part of the participants in this study, is to acquire language using tools that exist in an accessible format. In encouraging learners to take up these tools, I am in effect asking them to be their own agents of change. As Bruner (1994, p. 16) states, “we need to conceive of ourselves as agents impelled by self-generated intentions.”

Like the machine processing image of a brain at work, I envision myself as a live browser engine if you like, scanning CBC radio content for ESL content requested by users who are willing to pay a subscription fee for the ‘added-value’ of transcripts and exercises that I provide. (This role is conceived as interim before Artificial Intelligence pioneers create sophisticated browsers and template interfaces.) As Turkle predicts:

Today, the recentralization of emergent discourse in AI is most apparent in how computer agents such as those designed to sort electronic mail or scour the Internet for news are being discussed in popular culture. As we have seen, the intelligence of such learning agents emerges from the functioning of a distributed and evolving system, but there is a tendency to anthropomorphize a single agent on whose intelligence the users of the program will come to depend. It is this superagent that is often analogized to a butler or personal assistant. (Turkle, 1997, p. 145)

Like many, I am no stranger to this tendency to anthropomorphize tools. My car was affectionately known as “odge” and I’d talk to her as I would a collaborator. As a lonely freelancer I would fondly address my word processor as “friend”, thereby instantly evoking the feeling of company. This tendency to anthropomorphize my tools and give them more currency in my life has just deepened as my computer has metamorphosed; my writing “friend” is now my video editor, my link to colleagues and students and one of my sites/cultures.

The kinds of tasks that computers perform for (and with) us require that they express two distinctly anthropomorphic qualities: responsiveness and the capacity to perform actions. These qualities alone comprise the metaphor of agency. (Laurel, 1990, p. 358)

This study attempts, through an examination of students' reflective responses to the Web site environment as a listening tool, to better understand the role of design as 'agency'. Is the site just a fancier more expensive cassette deck streaming audio, or does it take on the personality of an agent/instructor because of its promise of interactivity? Does the Web as a cultural context of choice—"nowness" (De Kerckhove, 1997)—give students more confidence in their own agency to acculturate? Does agency in the form of being able to control the *form* of language stimulate more cognitive awareness, and hence strategy use that leads to acquisition?

CHAPTER TWO

FACTORING the “BRIDGE” INTO LEARNING

Setting

The setting for this project was the Data Bar at the now defunct Web Café in downtown Vancouver, B.C. As a group we had access to five PC terminals in a row at the ‘bar’ with a camera set up in the nearby couch/terminal area. The Bridge is accessible on the Web anytime/anywhere. Whether in a class, at home or in a web café Bridge students are essentially on their own as autonomous learners. The type of selective listening⁹ that the Bridge serves facilitates a kind of learning autonomy.

Holec (1981), Little (1991) and Dickinson (1996) define autonomy as an attitude towards learning and a capacity for independent learning. In other words, to work autonomously learners must first have the ability to take charge of their learning, i.e. the know how, and secondly, they must be operating within a structure which enables them to exercise control over their learning and to assume the responsibility that this entails (Holec, 1981). Taking responsibility means setting your own agenda (either implicitly or explicitly) by identifying goals, formulating plans, monitoring and evaluating (Holec, 1981). Learners who set their agenda Dickinson (1995, p. 168) contends are “more focused and more purposeful, and thus more effective both immediately and in the longer term.” The web site is designed to give students control of their listening, by giving them the controls, i.e. the player, the transcript, the background. Whether they decide to take control is primarily dependent on such affective factors as motivation and beliefs about what it takes to become better learners, better listeners.

⁹According to Lightbrown’s (1985) *selective attention hypothesis*, formal instruction acts as an aid to acquisition, not by actually bringing about the internalization of new linguistic features, but rather by providing the learner with ‘hooks, points of access’ (Ellis, 1994, p. 656).

There is no agreement about what constitutes or defines a 'learning strategy' (Ellis, 1994) but distinctions are made between cognitive, metacognitive and social/affective strategies. Little and Singleton (Ellis, 1994, p. 499) argue that "it is possible to help adult learners to explore their own preferences and to shape their learning approach to suit the requirements of a particular learning task." It is this belief that underlies the idea of 'learner training' (Holec 1987) and the study's intent to show how multimedia tools like the Bridge can facilitate a connection between learner affective states, principally beliefs and motivation, and the type of strategies (cognitive—inferencing/guessing, imagining; metacognitive—self-monitoring) they use to help train themselves to be autonomous learners/listeners.

Cognition Factors

Why Stress Listening?

Listening is the skill students use the most in the classroom, but it is never used in isolation. Sound surrounds us. If we are not deaf and our ears are open, we are hearing or filtering input all the time. But hearing is different from listening; hearing becomes listening when intent is put in motion, that is when there is a purpose or reason to attend. To engage in listening is to engage in 'language as action' involving linguistic, ideational and interpersonal domains (Rost, 1990, p. 79). Schmidt (Ellis, 1994, p. 361) emphasizes that "subliminal language learning is impossible and that some degree of consciousness is necessary for 'noticing' to take place."

There is no complete understanding of all the processes involved in listening (Rubin, 1994), but we do know that the cognitive processes or signals that listeners use to interpret what is said, i.e. top-down (schemata, world knowledge) and bottom up (phonemes to words to

syntax), or as some would argue a combination of both (parallel processing) are facilitated using interactive multimedia (Brett, 1997). The current classroom practice using the Communicative Language Teaching (CLT) approach emphasizes effective functional speaking with, as I contend, not enough attention on the teaching of listening as a skill, so that students completely comprehend what is said before they are expected to respond. Vanasco (1994, p. 1) corroborates this view when he states that, "listening is the forgotten stepchild in communication skills and has been somewhat superficially treated."

Theories of enactive language acquisition that espouse teaching listening comprehension before all other skills have been around for centuries and formally operationalized in the last thirty years. James Asher (1972) stressed listening comprehension in his Total Physical Response (TPR) program believing that listening comprehension should be developed fully before any active oral participation from students is expected. Asher's comparative experiments with TPR, which combine listening with enacting, (responding to commands) showed that students (mainly, beginners) who learned by this strategy were superior in retention of the second/foreign language to those of control groups. This approach may prove valuable for simple functional commands at the beginner level but it doesn't begin to address the demands of content explicit upper level listening.

James Nord (1978) argued convincingly for a shift in the paradigm of language teaching from speaking to one of listening where competence/acquisition was valued. Nord (1978, p. 5) asserts that "language acquisition can and does take place without any overt performance and, therefore, the primary methodology of language teaching is to create the stimulus conditions which facilitate the attentive and retentive transformation of sound information into an internal

cognitive structure or language competence.” Rost (1990, p. 11) echoes these arguments when he asserts that listening is not only a linguistic skill, but also “a cognitive and social skill”. Such an interpretation of the listening process implies that the listener is ‘situated’ (Lave & Wenger, 1991; Bruner, 1996), choosing to act in a context where he/she must rely on knowledge of lived experience in their first language to inform comprehension in the second language situation. This discourse is consistent with Varela, Thompson & Rosch (1991) whose point of departure for the enactive cognitive approach is the study of how the perceiver can guide his action in his local situation. “Perception is not simply embedded within and constrained by the surrounding world; it also contributes to the enactment of this surrounding world ” (p.173). At the web site students had the choice or ability to ‘enact’—to either click the transcript on or off, go to the background links, use the glossary for reference—whatever they perceived as useful guides.

Second language learners have a known intact world in their first language; they have schemata, organized clusters of knowledge, to draw upon (Rost, 1994). Transferring this known schemata to another language world is a total sensorimotor effort, and the assumption is that tools, like background links to extra information, glossaries and especially a textual transcript can assist in that transfer. Varela et al (1991) speak to the enactivist cognitive process that second language learners are faced with, when they affirm that the known, the previous ground (schemata) are tangible building blocks. “Cognition is no longer seen as problem solving on the basis of representations; instead, cognition in its most encompassing sense consists in the enactment or bringing forth of a world by a viable history of structural coupling” (205).

I contend that if listeners choose to use the visual/textual transcript, the glossaries, the BG Web links, then they are entering into a complex state of structural coupling, recognizing and

selecting information from all of their five sensorimotor functions, i.e. hearing; seeing ; smell, taste and touch perceived through the evocation of the written and spoken word; and recognizing the sixth sense, the thinking *mind in the body*¹⁰, “all codependently arising as the Wheel of Life” (Varela et al, 1991, p. 112). Far from simply being a passive skill of receiving information, listening is in fact a language act in ‘real-world’ communication, in which “the listener is actively involved in either two-way interactive communication or one-way reactive communication” (Morley, 1990, p. 331). The assumption is that the transcript tool makes one-way reactive listening a more strategically conscious act of constructing knowledge.

Reading-While-Listening (RWL) - A Self-Monitoring Strategy

In adhering to a Communicative Language Teaching (CLT) approach I view development of listening as part of the process of acquiring a “fluid set of language skills” (Rost, 1994, p. 17), and believe that multimedia tools in the hands of students promotes greater fluidity. The basic assumption is that if students know that the text track is there they can ‘monitor’ the explicit visual/textual knowledge (Krashen, 1983) which helps their implicit, aural learning. The point is having control over the subconscious acquisition process. This power of control is greater if the text is fixed (the objective outside world represented on the screen page) for then the subjective mind of the reader is free to roam (De Kerckhove, p. 123). By being able to switch the transcript on and off, students can essentially switch between meaning (the implicit aural continuum) and form (the explicit transcript, the fixed representation), thereby attending to both. By being flexible they are possibly going to be more successful.

¹⁰Italics are used to telegraph the writer’s post-Cartesian stance that argues against the view of the mind as separate from the body.

Krashen's (1982, p. 21) Input Hypothesis claims that "we acquire by going for meaning first, and as a result we acquire structure". The language act Krashen is referring to is two-way communication that exacts meaningful comprehension because a response is required. Participants in this study were listening for the sake of listening and not faced with this imperative. This does not,, however, negate the desire to understand while spending the time attending or 'noticing'. Student comments confirm that they very much wanted to understand every word, every nuance, and relied on the transcript for any remembrance of learned structures, i.e., relative pronoun clauses following the subject, that would inform and aid comprehension checks. The transcript illuminates those learned structures and informs the listening acquisition process not as a separate entity, but one that works in tandem.

As Rost (1990, p.8) points out "although reading and listening involve different linguistic decoding skills (i.e., visual vs. aural) the cognitive strategies that underlie effective reading will have much in common with those that underly effective listening." Therefore, the inclusion of reading-while-listening as a scaffolding strategy makes cognitive sense. In addition, Kenning & Kenning (1990, p. 33) note that "in respect to the screen output from the computer, i.e.,written input to the learner, the physiological and psychological evidence for inner speech, and the use of the articulatory loop while reading, indicate that the visual display of language material can be a powerful stimulus to the cognitive sub-systems associated with auditory input and output." The site also exemplifies some of the attributes reading specialists Chun & Plass (1997, p. 73), argue instructional multimedia materials should have, i.e., "the ability to use presentation modes best suited to aid a particular cognitive process, and the possibility to support a variety of individual differences within one application." The following section identifies some of the individual affective differences that relate to this particular study.

Affective Factors

Beliefs

As site co-designer I was operating on a set of beliefs about the beliefs my target sample group, international young adults, had regarding their learning styles. On the surface the students obviously believed in ‘learning in a natural way’ (Ellis, 1994, p. 477), for they chose to come and live and study in Vancouver and immerse themselves in the native language setting. At the same time they recognized that just *being* in the target language community was not going to motivate them to acquire English, nor instruct them in the intricacies of the language, so they were also enrolled in classes studying grammar and vocabulary. The resolve to support natural language absorption with structured classes confirms their belief that they also needed to ‘learn about the language’.

As their first-person reports and on-camera interviews revealed, they also believed that their self-confidence and aptitude played an important role in their learning success. Ellis (1994, p. 479) states that, “it is reasonable to assume that students ‘philosophy’ dictates their approach to learning and choice of specific learning strategies.” The main thrust of this study is therefore, an examination of *how* the participants approached learning in a web listening environment. Through their strategy reporting, we also learn about their beliefs that motivated their actions. In the broadest sense we begin to understand student ‘agency’.

Motivation

In terms of evaluating the success or failure of any learning style, it is necessary to acknowledge the importance of motivation. Gardner (1995, p. 506) defines motivation to learn a second language as “the extent to which the individual works or strives to learn the language

because of a desire to do so and the satisfaction experienced in this activity". Dickinson (1995, p. 168) defers to the more general model of cognitive motivation which is concerned with what learners are prepared to learn—the topic, and with how much effort they are prepared to exert in order to learn it. Motivation can be broken down further into intrinsic motivation, a desire to associate with the language group, and extrinsic motivation, the promise of rewards such as career advancement (Gardner, 1985). As stated earlier, the participants' intrinsic motivation in my study seemed clear; they had uprooted themselves for six months to a year to study abroad. As for extrinsic rewards, these were linked to aspirations to continue university studies in North America, or to enhancing their job opportunities at home in Brazil or Korea once they had certifiable English fluency.

The study was a voluntary commitment, so recruitment was in effect a motivation screening process. The five participants who signed up were motivated by a desire for extra listening exposure, an opportunity to explore the Web, plus the challenge of expressing themselves on camera and in conversation -- a 'push' to talk.

The site as content had no specific objectives other than to inform and hopefully engage. Nor were there specific listening tasks per se, other than vocabulary, comprehension feedback exercises which weren't configured as evaluative. Students were simply asked to come and use the tools/site and then report on camera about how the tools changed the way they thought about their process of listening, and/or their learning strategies. Their "know how" or ability to take charge of the learning process already implied a degree of metacognitive awareness (Holec, 1981; Dickinson, 1993; Gremmo and Riley, 1995).

The seven lesson 'prototype' content focuses on pop culture, with a Canadian slant,

distantly related to the student's monthly classroom theme of culture at their school, Westcoast English Language Center. The lessons were presented in a structured order, so the site is far from its ideal of being a choice rich database, and thereby supporting learner responsibility in making content choices based on interest (Holec, 1981). Students could however, choose their pace and style of listening, and these aspects were important motivating factors. Dickinson (1995, p. 174) notes that "there is substantial evidence from cognitive motivational studies that learning success and enhanced motivation is conditional on learners taking responsibility for their own learning, being able to control their own learning and perceiving that their learning successes or failures are to be attributed to their own efforts and strategies rather than to factors outside their control."

The Desire for Control

Control, as in mechanical control of the player and transcript, is the only control variable that I can honestly say the site as a tool offered. As mentioned earlier, learners didn't have control of content, the choice of what they wanted to listen to. They did, however, have control of how they navigated that content and therefore, were responsible for their strategies, which was the point of the inquiry. The aim of the study wasn't to transform them into "successful" listeners, but rather to help them come to terms with their strengths and weaknesses, to learn to listen in ways which were compatible with their personalities (Gremmo & Riley, 1995), to in effect make the connection between their affective states and their learning strategies, be they cognitive or metacognitive.

There have been many studies on what constitutes a 'good' language learner (Ellis, 1994). In determining whether or not a 'good' language learner is essentially an autonomous,

self-directed learner, I turned to Lebauer and Scarcella's (1993) checklist of strategies that distinguish good language learners: (1) have insights into their own language learning styles and preferences, (2) take an active approach to the learning task, (3) are willing to take risks, (4) are good guessers, (5) aren't afraid to look foolish, (6) are aware of form as well as content, and (7) actively try to develop the second language (L2) into a separate reference system. The comparison serves to highlight the prevalence of a pro-active attitude and implies a capacity in acknowledging the formulation of conscious strategies.

Clearly, only upper level 'good' L2 learners are equipped with learning strategies to cope with the autonomous challenge of surfing the Web. The Web's attraction or currency is its "nowness" (De Kerckhove, 1997, p. 97), a strong motivating factor for my target group of young international adults who to a great degree arrived already enculturated in the Web's "Hollywoodism"¹¹. Dickinson (1995, p. 167) points to the socio-psychological model that links motivation with attitudes towards the community of speakers of the target language. Second language learners have to like the speakers to want to integrate, and they have to feel it's possible to integrate, i.e., engage in comprehensible two-way communication. The web site as an aural "Bridge" aspires to pave the way to that comprehensible community.

Before going out into the community and judging first hand whether they like the people, students first have to have the self-confidence to take that initial step. They can become caught in a catch-22 trap because self-confidence only comes from achieving, and without a belief that they can make the performance grade they may or may not take up the challenge. As Tremblay & Gardner (1995, p. 507) note, "the amount of motivational behavior exerted to reach a specific

¹¹ A term coined to describe the domination of Hollywood, i.e., American culture, in the global community through the export of popular films and television programming.

outcome will be influenced by perceived probability of the attainability of the goal.” Oxford and Shearin (1994) have indicated that if language students do not perceive value in their performance, then their motivation will be lowered. Learners are always assessing where their language mastery is, and if the decoding task seems daunting for the inadequate language tools they so often feel they possess, then they will often retreat from the challenge. It’s human nature to seek a comfort zone. The Bridge concept of facilitation is to provide tools like the hypermediated transcript as a kind of ‘comforter’ or safety net so that students will risk trying out strategies like guessing, using repetition and self-monitoring to in essence find their “zone of proximal development.”

The zone of proximal development has become an important idea for clarifying the relationship between development and instruction. Vygotsky describes the zone of proximal development as encompassing the gap between the student’s level of actual development determined by independent problem solving and his/her level of potential development determined by problem solving supported by an adult or capable peers. (Dixon-Krauss, 1996, p. 14).

For the purpose of this study I am extrapolating Vygotsky’s support community of “adults or peers as instructors” to now include web site tools like the Bridge that perform a kind of tutor/instructor role that recognizes the existence of this developmental gap and attempts to bridge it, assuming users are motivated to make the leap. It is vital, therefore, that in such self-directed learning systems technology be at the service of the learner and not vice-versa. The view of this study is that technology and user merge and tool use becomes recursive; to reiterate, “tools shape us as we shape them” (Goldman-Segall, 1998).

CHAPTER THREE METHODOLOGY

Action Research

Whether collaborating on the design of a web site (an extension of CALL/multimedia material development), teaching or collecting research data, my approach is one of action research, putting theory into practice, based on the “notion of a spiral of self-reflection -- a spiral of cycles of planning, acting, observing, and reflecting” (Kemmis, 1993, p. 185). Compelled by students’ request for more comprehensible listening input (Krashen, 1983) and excited by the Web’s potential as a mediated source of authentic speech, I acted. I had no Web authoring experience but I knew some programmers who did. I had the CBC contacts, a bit of seed money, a background in teaching and most importantly the creative drive, the ‘agency’ to make a prototype site a reality.

As for questioning the rigor of such an intuitive point of departure in planning this research project, I appeal to Patterson and Shannon’s (1993, p. 10) view that “teacher research comes from an explicit and well-developed philosophical point of view.” My view is one of shared autonomy, whereby my autonomy as teacher/CALL developer is interdependent with my students’ autonomy (Little, 1995). I learn from my own pedagogical process and tool use, and my students, through their learning process and use of tools, teach me as well. The following section on design traces that autonomous journey. In order to fully appreciate the trip I suggest opening the site, <<http://www.callcentre.bc.ca/online>>, as a reference while you read.

Design

Some scholars, such as Hubbard (Levy, 1997, p. 114), maintain that the starting point in designing CALL materials should be linguistic theory, a familiarity with the learning assumptions that identify student learning styles. Warschauer (1996, p.12) points out that “the effectiveness of CALL cannot reside in the medium itself, but only in how it is put to use.” Because the computer environment is so dynamic and interdisciplinary materials developers have relied on their intuition as much as on theory as a point of departure. As a result there is no specific theory of CALL (Levy, 1997), research paradigm (Chapell, 1997) or even a design codification. CALL development appears to be an evolving team effort involving programmers pedagogues and student users, all bent on customizing or individualizing the learning process.

In considering students’ different approaches to learning I operated on the assumption that listening was an autonomous act motivated by an interest or reason to ‘attend’. The Web and its broadcast sources, coupled with exercise templates fit Oxford’s (1993:210) criteria for what constitutes valuable listening activities:

- listening activity must have a real, communicative purpose.
- must use authentic language without significantly slower or simple speech than everyday life.
- prelistening tasks must be used to stimulate the appropriate background knowledge.
- listening text must offer content that is personally interesting and motivating to learners.
- when possible, the whole listening text should be given, and then it should be divided into parts that can be repeated.
- listening activity must require listeners to respond in some meaningful fashion, either individually or in small groups or pairs

The web site listening lesson design builds upon existing ESL upper level listening textbook formats (also informed by SLA theory), but attempts to exploit the medium in such a way that the listening experience is richer and more interactive than what the traditional book and tape offers. The site is divided into three sections: Pre-listening consists of schemata building exercises such as “Background” introductory notes linked to related sites; a “Vocabulary” list of words linked to the transcript; “Questions to Keep in Mind” which are topic prompts and, if applicable, a “Conversational Techniques” box that offer speaker specific hints; the Active listening section is the actual interview on the player with a transcript on/off button and Post-listening features comprehension exercises like “True/False”; “Vocabulary Matching”; “Context Sensitive Matching” as well as suggestions for “Discussion”.

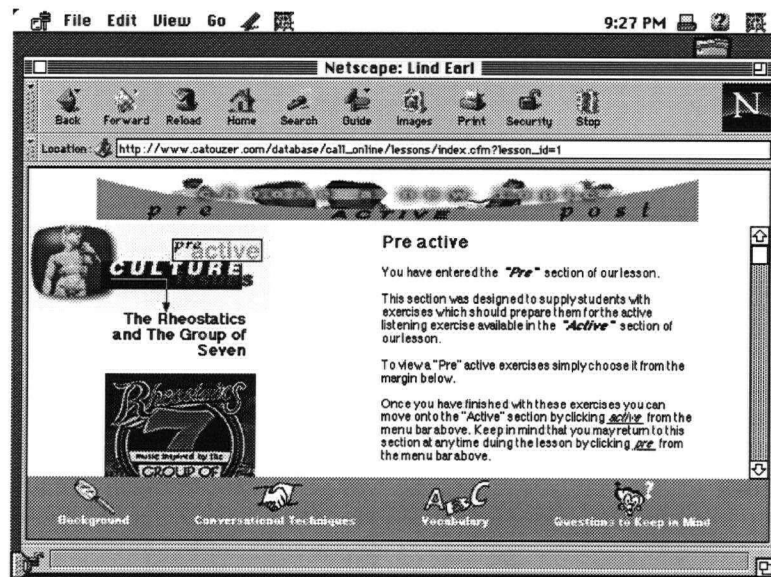


Figure 1. “Bridge” lesson screen

Time, programming costs and imagination are the only limits to creating interactive comprehension exercises. The transcript alone is a rich source of possible hypertext exercises incorporating clozes (fill in the blanks) that could highlight lexical or syntactical points linked

to answers, explanations or remediation. The principle of hypertextuality, as De Kerckhove (1997, p. 79) notes, “allows one to treat the Web as the extension of the contents of one’s own mind. Hypertext turns everyone’s memory into everybody else’s, and makes of the Web the first world wide memory.”

Choosing Content

The content objective of the CBC Radio interviews was to stand-alone as enrichment or to support classroom topicality. Three of the research participants were in the TOEFL prep program in the International program at WELC where the monthly theme was culture, and the other two students were in the Business English program. The theme of culture was a content focus point for the project, but there was no discussion with the students’ instructors regarding curriculum specifics that the listening content could support, so the site’s first lessons addressed pop culture generally with a strong Canadian culture connection.

My main criterion in selecting interviews from CBC Vancouver radio archives was the subject’s Web connectivity. The interview had to have some linked currency on the Web, i.e., movie pages, music to listen to, fan sites, etc. Five of the interviews were taken from the now defunct Radio Two alternative music program, RealTime, which streamed live to the Web to a young Gen-X audience, my audience; the other two interviews were edited clips from the noon phone in-show Almanac’s, featuring callers’ favourite books and movies. I was looking for a variety of voices on a variety of ‘universal’ pop cultural topics that would be timeless and hopefully appeal to the target young adult audience. It wasn’t possible to directly source the sound from the RealTime archives because of its low quality (16 bit) and connectivity unreliability, which is a criticism of Web use for classroom purposes, versus serving files to a

LAN, or from a dedicated site. Quality and reliability won't be streaming issues in the future as RealAudio improves with each version. The study used RealAudio version 4.0 and while it was in progress, RealAudio Player 5.0 with a browser engine was released.

The CBC Radio interviews ran between 9 and 12 minutes in length and were edited for content continuity and interest. In most test situations, especially in TOEIC (Test of English for International Communication), the listening chunks are short, 30 seconds to 2 minutes long, so the Bridge's longer interviews were challenging. I therefore, deliberately chose to use Almanac's shorter, self-contained 'phone-in' chunks for the study's last two lessons.

Although I was choosing the interviews, i.e., being the 'human browser' with a subjective lens, I was trying to think 'objectively', projecting whether or not my choices would be the student's choice. In this respect the site did not facilitate 'real' choice, the main requisite for autonomy, but was instead a guided journey. The future goal of the site is to grow through collaboration into a diverse database of different types of digitized sound files such as broadcast items, student presentations, narrations, lectures, etc. Such a resource would I believe facilitate autonomous choice.

Transcription Process

As sole content producer, I faced the daunting task of transcribing seven, ten minute interviews, plus creating the accompanying lesson links, i.e., background notes, glossaries and comprehension exercises. The process included numerous emails between the programmer, designer and myself. Catouzer put up the sound on the site as I raced to input lessons into the user friendly 'back end' template --<http://www.callcentre.bc.ca/online/admin>. It was such a harried research/design schedule that I was working only one lesson ahead of the students and

trying to implement changes as I received feedback. This type of reflective developmental process is an integral component of true action research. Electronic publishing is a very satisfying creative process because you can instantly see your changes in the finished product. The ease of using the Web template/applet is what encourages me that students and other teachers could easily be trained as content producers, but they would have to be interested in doing the transcription bullwork, that is until machine transcription¹² is as accurate as human transcription.

The transcript is the cornerstone of the site, for it illuminates how grammatically and syntactically imperfect spoken speech is, which is often the norm and not the type of idealised written grammars most language students are exposed to. Native speech is full of pauses; hesitations like umm's and aah's and 'you knows'; repetitions; ellipses (full lexical items and relational links left out); assimilations, reductions, elisions (omission of phonemes); run-on sentences, dangling modifiers, etc. (Rost, 1994). And yet, it's this very native imperfection, this authenticity, or "material which has not been specifically produced for the purpose of language teaching" (Nunan, 1989, p. 54), that the study group wanted to hear.

Transcribing 'authentic' native speech in the radio interview format was a new listening experience for me. (In addition to the hour and half of interviews, I also transcribed approximately five hours of the ESL student responses from the video data, which taught me about their speaking patterns). The transcription process became a challenging test of my aural-touch typing memory recall against the clock of accuracy. (As a result, I am now a much more acute listener to the rhythms and nuances of spoken, and even sung, speech.) Like my

¹²Companies like TCC in Victoria, B.C. @ <http://www.teletranslator.com> offer automatic captioning systems for various languages; opportunities for English remain to be explored.

students I would find myself closing my eyes to listen more intently, holding off a little bit longer each time before stopping the cassette machine or the VCR. As a listening process, transcribing can be an interesting mental game for both teacher and second language learner. The on/off transcript, as scaffolding tool, becomes an object to listen and think with (Papert, 1989). "Even young subjects once they view what is to be remembered as a text, begin going meta considering not only what is to be remembered but how one might organize it to make sense of it" (Bruner, 1995, p. 169).

Writing for the Web

I have been a freelance writer/broadcaster for radio, television and print, on and off for the last fifteen years. My writing background prepared me for the script and link style of the Web, but writing for the Web requires a new perspective on the printed word because it is not fixed; it is graphically alive. Sven Birkets (De Kerckhove, 1997, p. 87) comments "that the difference between the word in print and the word online is the difference between a noun and a verb. One (the printed text) is a static reference, a "product" ; the other (the online) is a dynamic appearance, a "process." It is an interesting analogy but there is a danger that as a writer you can get carried away trying to write in such a way as to incorporate the active "process" of the word that it becomes artifice and ineffectual. De Kerckhove (1997, p. 108) romanticizes this creative dilemma further when he suggests that "the magical power of words in a hyperlinked computer program or the fluidity of writings on our electronical walls, turn information processing into a quasi-mythical job."

Fortunately, time is the task master on the Web, so the environment of instruction or navigation demands plain language and purposeful icons/photographs/buttons. Text designed

for the Web seems to defer to the primacy of the image, or the overall visual context. But as our appetite for compelling images grows, so do the text blocks grow that support those images. We end up in a sense reading more because as Barthes (1977, p. 25) noted “text constitutes a parasitic message designed to connote the image, to quicken’ it with one or more second-order signifieds”. In my pursuit of comprehensible input for ESL learners I was going the other way, looking for images that would connote the text. I wanted to quicken’ the Pre-page with at least one image signifying the topic, using easily appropriated images from associated sites, i.e. book or CD-Cover, movie still, but the issue of copyright loomed its unresolved head, and so, there are blanks on the site where there should be graphics/pictures. Copyright at a click remains a controversial issue and one that flared between the rules of academic propriety in this project and the anarchic nature of the as yet unregulated Web.

As a writer I always write from the position that the reader is in trouble and therefore, my job is to be a troubleshooter. Whether the audience is native English or ESL learners, the challenge is to condense, not condescend. Because you don’t want to dumb down your writing, thus taking it out of the ‘authentic’ domain, you try to incorporate as many known entities that you think your audience may possess from their first language, i.e., names, phrases, images. Without language we lose our ability to negotiate meaning (Bruner, 1995). Therefore, as writer/designer it is my task to create an interface that provides as many ‘universals’ as possible, so the learner can negotiate/navigate easily. Because the lesson theme was loosely based on current cultural artifacts/icons i.e. music, books, films, specifically highlighting some of Canada’s contribution, I was attempting to find ‘universals’ my audience with its shared “Hollywoodism” could relate to.

Menu features and text were designed to create context, to activate students associative or 'schematic' constraints (Rost, 1990). Each "Background" note has at least two hypertext links to support this schematic build up. Although the links send students to more text to decode, the assumption is that this will be time well spent, because it may prime them for lexical recognition in the interview, as well as provide insights into the interviewees speech rhythms or manner of expression (Rost, 1990).

How helpful this background information is in the end and how much of it students retain in short-term memory is unknown. The purpose of writing to incorporate hypertext links is to engage the learner in textual or aural information that would stimulate more parallel processing and aid their cognitive processes. "In a parallel analysis the listener computes possible constructions of different combinations of elements until the ambiguity can be resolved. If the ambiguity cannot be resolved as the discourse proceeds, the listener will make the best possible guess and carry forward this representation until it fails and needs to be revised" (Rost, 1990, p. 50). Another very real possibility is that students would ignore the background notes and other supportive tools altogether and not make any attempt at building up their contextual schemata. Whether working autonomously or in traditional teacher guided work there is never any guarantee that students are indeed following instructions and doing the work. The objective, therefore, was to keep text on the site to a powerful minimum, as instructional aids only to the listening task, not as more reading tasks or links to more text, which would signal 'more work' to be discarded.

Data Collection

Recruitment

From the outset I was mindful of the difficulty students would face interacting with the 'authentic' English of the Web. The recruitment poster that was circulated at Westcoast English Language Center (WELC) (see Appendix 1) stipulated that only upper intermediate to advanced level students would be considered. After proven language proficiency or the "know how" (Holec, 1981), my only other requirement was commitment, implying what Holec (1981) describes as a responsible "attitude". Web experience wasn't necessary. None of the students expressed any indepth prior knowledge of the Web, which was part of the attraction in signing up. Individual learner differences such as age, gender and previous classroom English (tested aptitude, such as TOEFL scores) weren't factors.

Recruitment was difficult. No one showed up to the advertised information session (Appendix 1), so I visited five classes of upper level students persuading students of the advantages of listening practice on the Web. The brave five who signed up came screened for motivation because they had to commit to all seven classes. I recruited two Brazilian males, two Korean males and one Korean female. Only two students completed all seven sessions.

Originally the study was planned for WELC's Gastown Language Lab but after several preliminary trials running the Web application their computer system proved inadequate. At the last minute the project was switched to the "Data Bar" at the Web Café nearby. The staff at the Café were very supportive and the time slot didn't create any inconvenience to the regular clientele. I was able to block off five computer stations Monday and Wednesday afternoons, between 4 and 5 :30 pm. at a reasonable hourly package rate. Other than the uncomfortable

ergonomics of the high bar stool the setting proved to be an excellent choice for the anytime/anywhere philosophy of the Web. The Cafe's computers were all Pentium processors running on a fast, T-1 line.

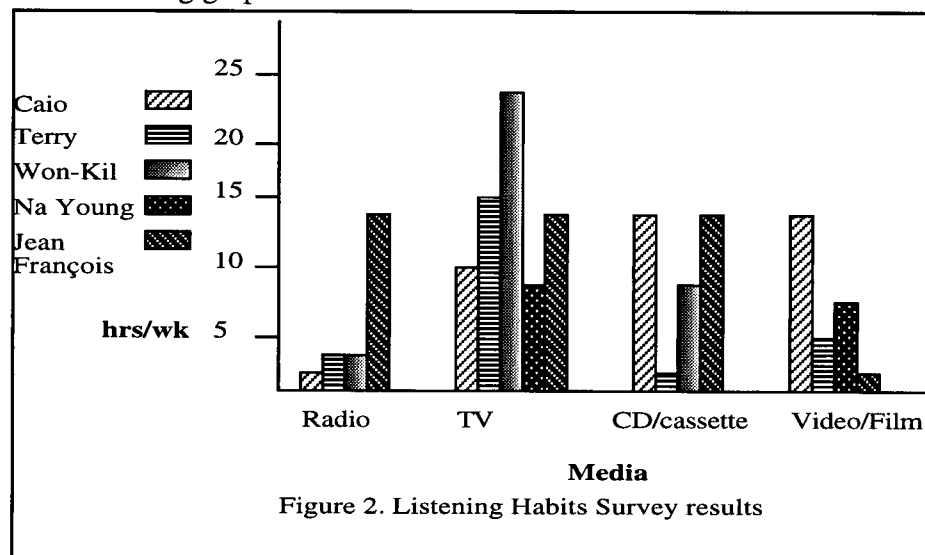
In keeping with my objective of a stand-alone autonomous learning environment I attempted to remove myself from the on camera reporting process as much as possible, choosing, to lock one camera on the students as they worked and setting up the ready-to-go response camera away from the work stations. Students had one hour online to complete the lesson and any Web surfing they could fit in, so naturally they took the full hour. The one hour on-task time was a parameter from the start, but when I thought I'd have WELC's Lab to work in I projected that students would vary in their length of time on task and would be ready to go on camera at staggered times. In reality, they all ended up finishing each session about the same time and had to wait around to do their on camera responses negating the intended privacy.

I wanted the on camera response area away from the work stations, so on the first day I went downstairs from the data bar and used a dynamic black and white poster as a backdrop. It proved to be 'too busy', so I moved upstairs to a couch work station area adjacent to the data bar at the back that had a neutral background. I only had the existing overhead spot to light the subjects, so consequently the videotapes are darker than I would have liked. Because the student strategy responses were in essence an evaluation of the site, and therefore an evaluation of me as agent/designer, I didn't want to compromise the students' objectivity by being in the camera range, so I had to set the chair and camera angle in a ready-to-push position and then leave. This was the routine for five of the seven sessions; the other two I controlled the camera, once in a face-to-face interview (from behind the camera) and then in a round table. As a result the video framing is varied.

Listening Habits Survey

Ellis (1994, p. 530) distinguishes two types of learning strategies: language learning strategies concerned with the learners' attempts to master new linguistic and sociolinguistic information about the target language, and then skill learning strategies, whereby learners are concerned with becoming skilled listeners, speakers, readers, or writers. This study focuses specifically on the interrogation of the listening skill, and is therefore, viewed as a 'thinly' descriptive ethnographic study of the learner as listener only. It is a segmented perspective versus a longitudinal study that garners "thick descriptions" (Geertz, 1973) of the learner as rounded individuals, and not just as strategists. In a video environment "thick descriptions" are the images, gestures or sequences which convey meaning because they have been gathered over a long period of observation (Goldman-Segall, 1989).

Still, in keeping with my narrow focus, it was important to have a more indepth picture of the participants as listeners, so at the first testing session they filled out a Listening Habits Survey (Appendix 3). Participants' answers are discussed as an anecdotal correlation to their on camera responses throughout the case studies and subsequent analysis. The survey results are presented in the following graph.



Pre & Post Testing

Both Dunkel (1991) and Pennington (1995) as cited in Levy (1994, p. 218) draw attention to the limitations of pre-testing and post-testing research techniques in CALL, arguing instead for longitudinal research designs. With this in mind I still, however, decided to use a sample of TOEFL listening comprehension mini-talks as pre and post testing indicators. It was admittedly an unfair measure, as only three of the five participants had ever been exposed through class work to such listening tests. To add to this unnerving experience, the content of the site -- pop culture interviews -- was totally at odds with the TOEFL content which was general interest topics and academic statements. However, in my defense, I felt that the nature of the project as 'treatment' was ripe for some kind of comparative tool. Like the Listening Habits Survey, I am treating the results as an interesting, non-scientific, visual measure.

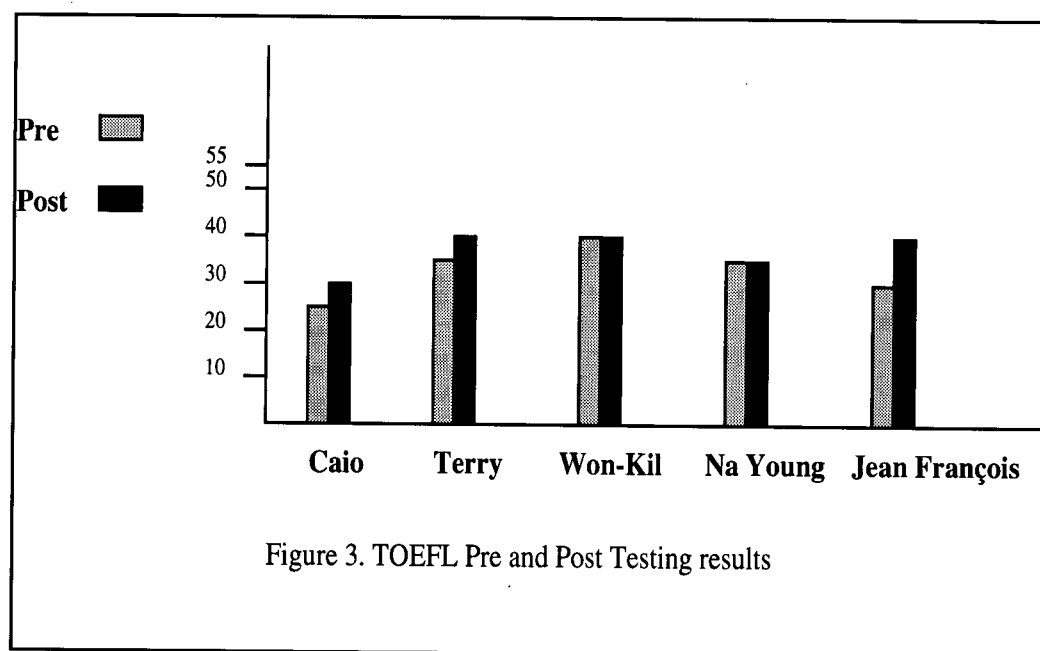


Figure 3. TOEFL Pre and Post Testing results

Videoethnography as Methodology

The study is concerned with analyzing segments of students' videotaped responses as they refer to emergent themes centred on self-directed listening strategies. These 'stories', or ethnographies of using the Web site tools, are 'thin' video descriptions whose purpose as data is to identify hypotheses about the usefulness of the Web site's strategy of reading-while-listening. In essence the inquiry examines how this 'culture' of Web tool use shapes users and vice versa.

In justifying the use of video as my choice of data collection I am reasserting the study's objective to create as autonomous (stand-alone) learning environment as possible. By locking a camera on the students' work station scene as well as pre-setting the response camera for their easy 'natural' access I was attempting to give students complete ownership of their learning environment (Holec, 1981; Gremmo & Riley, 1995), as they would have at home or in a self-access centre. The video camera in this way became a disembodied lens, removing my 'intentionality' as designer/researcher from the 'picture' and thereby, hopefully removing any associated performance anxiety students might feel in critiquing the Bridge's efficacy.

The necessity to let go of the notion of intentionality that dominates the question of the "social" as well as that of creativity cannot therefore be confused with the ideal of non-intervention, an ideal in relation to which the filmmaker, trying to become as invisible as possible in the process of producing meaning, promotes empathic subjectivity at the expense of critical inquiry even when the intention is to show and to condemn oppression. (Trihn, Minh-Ha, 1990, p.49)

Van Manen (1990, p.182) puts 'intentionality' further into perspective when he states that it is only "retrospectively available to consciousness", or in the words of Merleau-Ponty (1968) "the world is revealed to us as ready-made and already there." It is not possible therefore to experience something while reflecting on the experience, even if this experience is itself a reflective acting! That's why we need photographic tools. They help us be *here* now, and *there*

when we want.

Videotaping frees the researcher to participate in the moment if that is the intent and yet, still have the moment captured for post reflection. The study was intentionally designed to allow myself, as researcher, the opportunity to view student responses, reflect and structure the next session's questionnaire on themes as they emerged. The purpose being to interrogate student's cognitive (listening) processes, and have the study, even the content of the lessons, grow in synchronicity with their awareness.

At the beginning of each on camera logging session students were given a list of questions to respond to after visiting the site (Appendix 4). They were under no obligation to answer each and every question exactly as asked; some would run down the list in thorough order, others would respond only cursorily if the question was relevant to their strategy or way of thinking. Their astuteness and articulateness surprised me and encouraged me to probe deeper each time with my line of questioning.

I was interested in *what* the students had to say as well as *how* they said it. Their body language became a rich source of observable affective behaviour, another layer of description. The physical way I could see students responding on the tape when talking about the transcript tool led me to reflect on how it was becoming anthropomorphized into an 'agent'. By thinking of the transcript in terms of an agent it was possible to also perceive of it as a kind of apprenticeship partner (Lave & Wenger, 1991, p. 61). "Ethnographic studies of apprenticeship emphasize the indivisible character of learning and work practices, which in turn makes obvious the social nature of learning and knowing". This relationship of learner/apprentice and tool/master is, however, a metacognitive one and made visible only through reflexive questioning.

Being able to turn the textual transcript/master on and off becomes a powerful tool for students to inwardly reflect on their listening comprehension strategies in making meaning of the content. Reflecting on camera about that reflexivity using the site tools added another layer of reflexivity which in some cases became for me quite a 'readable' concrete physical affirmation of the invisible process they were trying to describe. Video data examined this way is very dense and information rich. It is, what Goldman-Segall (1998) refers to as "messy, slippery and elusive." In order to be able to strip away and separate these layers of thinking, both the articulated and 'enacted', I realized that I would need an "object to think with" (Goldman-Segall, 1991; Lawrence Halff, 1996) — a tool. "Constellations" is that video analysis tool which allows me in Halff's words (1996, p. 21) to "break down pieces of video in order to yield different and finer levels of granularity."

Constellations Video Analysis Tool

Goldman-Segall created *Learning Constellations*, the first ethnographic research tool designed to analyze multimedia data, as part of her doctoral research at MIT in the late 1980's. *Constellations 2.5*, the version used in this study, was redeveloped in collaboration with Monica Marcovici and Lawrence Halff at the University of British Columbia in the 1990's and expanded the functionality of Learning Constellations to allow not just one researcher but any group of researchers to catalog, describe, and meaningfully organize data they have collected and stored in digital format on the computer or at an address on the Web, now possible with *Web Constellations*. Constellations is a "multimedia platform for multiloguing", a metaphor for sharing "points of viewing". As a tool it supports "configurational validity", a term

Goldman-Segall (1994, p. 9) coined to describe “the way that trustworthiness of our re/presentations of others can be built into our design.” Pieces of data, video clips, are imported into the template and labeled as stars; stars can then be collected into meaningful clusters -- constellations. What is deemed meaningful to one researcher is made visible and concrete and open to the scrutiny of the stakeholders and any interested parties. Validation becomes democratized.

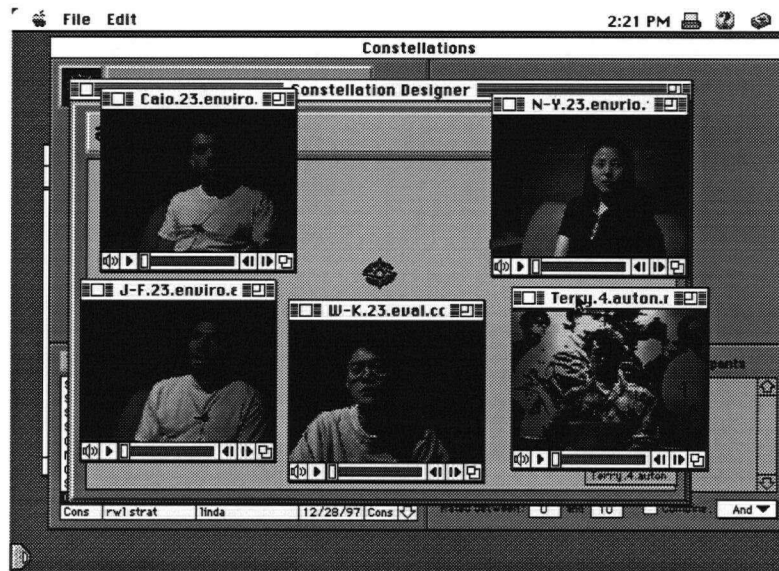


Figure 4. Constellations display of the 5 participants

Logging On

Before I could access Constellations 2.5 by downloading it from the MERLin site <<http://www.merlin.ubc.ca>> I had to purchase Hypercard 2.3, the software application that it runs on, and load it onto my hard drive. I work on a PowerMac 8600/200 with 2GB of RAM, using Adobe Premiere 4.0 as my video production tool and Clarisworks as my word processor. I had had a short tutorial on how Constellations worked but didn't fully understand or appreciate its database analysis functions until I actually worked on my own data.

In preparation for using Constellations I created a folder on my hard drive for my digitized video chunks and a folder for my text which was the video transcriptions in their entirety. Not

being familiar at this stage with Constellations as a raw video editing tool, whereby you can select in and out points right in the program, I spent too much time fine editing in Premiere, a video editing application. I also could have taken advantage of the annotating tool with text boxes or windoids on screen and not transcribed the entire tapes. However, in not knowing about Constellations time saving editing functions, and subsequently falling back on my old editing methods, I did get to know my data very well.

In preparation for inputting into Constellations I selected clips by doing a paper cut, i.e., organizing the video clips by student name in columns cross-referenced to topics or themes that emerged from the text. Unbeknownst to me what I was doing on paper is what Constellations was designed to do on a computer screen. This paper method made me concentrate on the word more than the image because it was just handier to read than rewind the tape. It turned out to be a betrayal of the mulilayered language of the video. If I had used only Constellations I would have been more focused on the video image from the start and all through the analysis. As it was, I had already settled on some controlling concepts or "constellation" groupings that emerged from the two dimensional text on the page, before letting the three dimensional video speak. By clinging to my paper familiarity I confess to undermining the analytical power of Constellations, a tool that Goldman-Segall (1991:494) specifically designed to discover deeper meanings found in the visual play, i.e. subtle hand gestures or changes in voice register. By the time I logged onto Constellations I had already invested a lot in my paper analysis and therefore, wasn't as open as I should have been to the emergent aspect of the database as organizer.

Constellations was in many respects the third stage and last stage of my video analysis; the first was on paper, the second on my computer desktop. On my Mac with its zippy

shades I can handle several operations at once, clicking easily between video and text files, viewing and annotating separately, but never in tandem or parallel. For me this created a tension or pull between the authority of the text and the authority of the moving picture. With Constellations I can combine the text and video on one screen (plus have a searchable database) and the two media don't seem like competing authorities, but rather layers of the same thing.

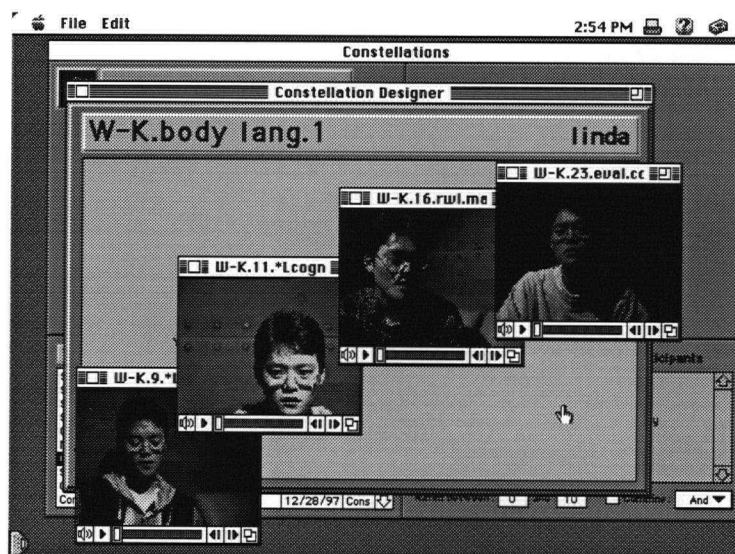


Figure 5. Won-Kil's body language

The Constellations window has four quadrants: the video and author's note windoid in the upper right; the database access quadrant, bottom right; the entry list quadrant on the top left with its four input fields, i.e., topics, participants, constellations, notes; and the complete list field, bottom left quadrant. Descriptors, the key words you use to interpret the video chunk, are typed in as topics in the database quadrant. The descriptors and participant names are inputted here and when they are needed to describe a star they are clicked and dragged to the top left entry quadrant. To create a constellation you click and drag the named stars from the list field bottom left up to the constellation box in the entry field top left.

The first stage of Constellations is adding descriptors, naming a star/video chunk and describing its content with keywords. This is where I got into trouble. I was importing video clips that I had carefully named for their projected thematic resonance, already anticipating them clustered as constellations, so was reluctant to rename them, in effect re/think them. I kept thinking my labeling was my organization, so I made star names as detailed as possible, thinking that when I looked at them on the list it would instantly trigger details of the clip, and save time. Ultimately, we want our tools to save us time, but stage one of inputting is quite time intensive. Constellations is a blank template that the videoethnographer fills in, and it takes time.



Figure 6. Na Young star template

It is this process of breaking down the star/video chunk into topic descriptors and rating them, making the grains of truth smaller and smaller and more exact, that is the thinking power of the Constellations tool. It lets you think intuitively, allowing meaning to emerge through the layering process, which supports, I believe, a more honest, rigorous investigation. Coming to it with such preconceived notions of what my data already meant was a hindrance and a betrayal,

although still a valuable learning experience. Goldman-Segall (1998), who is now the seasoned user, says she no longer feels so obliged as she once did to attach themes to each chunk of data in order to build her constellations. Letting the tool do its job comes with experience; letting go of 'intentionality' and learning to be more in the moment is an ongoing process.

As a multimedia platform or template, Constellations is a very freeing tool. You can easily import video and text and notate with topic descriptors in a very intuitive, haphazard fashion, free in the knowledge that the database search function will help you make sense of it later. The database as organizer is the 'object that helps you think.' In the input stage the main thinking is in naming your chunks, exploring the granularity, i.e., attaching an overarching theme such as "strategy" to a video entry, only to break it down in the topic quadrant into its fine descriptors, wondering as you 'keyword' it how your effort will be rewarded later in the search. Each time that I return to my entries and do a search, I see or hear something that I'd like to delete or add as a descriptor, thereby constantly and recursively stripping away layers of meaning. If the search doesn't find much, I have to question the validity of the data, or my interpretation of it. This is the similar analytic process that I went through on paper, as well as using the Constellations database. With the database the connections come quicker, but putting closure on the process is harder. Inviting other researchers or even students to view your data and make their own entries means the process of configuring validity can go on forever.

As a videoethnographer I am hoping to make my video data available online, so that other researchers, authors and even the informants, whose actions were recorded, can refer to them, add their comments and make the descriptions 'thicker'. This study is perhaps a first application of Constellations for the analysis of second language learning styles. In the spirit of post-modernist thinking, I tried as the "author" to be transparent (Goldman-Segall, 1994).

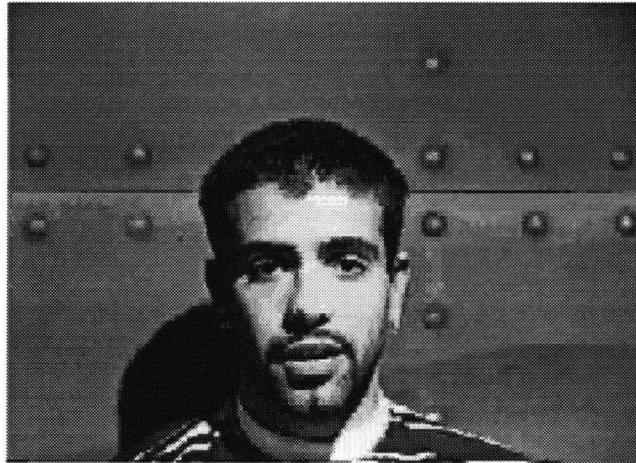
CHAPTER FOUR

INVITING CONTROL: 5 STORIES OF ESL LISTENING ON THE WEB

Caio, Jean François, Na Young, Won-Kil and Terry are different people with different sets of beliefs and learning backgrounds. Caio's first language is Portuguese, Jean François' French. They are both from São Paulo, Brazil. Na Young, Won-Kil and Terry are Korean. The one thing they all had in common was a desire for more control of their immersion environment, including media. The Bridge as a tool template offered them control over 'authentic' radio interviews linked to web culture, which I extrapolate to be a community of practice (Lave & Wenger, 1991).

Spoken fluency is the prized achievement in the minds of most second language learners, so ultimately what these learners want is stimulating two-way communication. While the Bridge can't provide interactive chat it can allow students to drop in on conversations and eavesdrop at their own pace using the tools available. The intent of the site is to facilitate a positive autonomous listening experience.

The 'thin' ethnographies that emerged are the participants' stories of using the Bridge tools and how the exposure may, or may not, have shaped their listening strategies, paving the way for natural acquisition. Their stories fall into two parts; the first addresses their preferred learning style, the second is a snapshot of their metacognitive thinking around the use of the transcript and the reading-while-listening (RWL) strategy.



Caio

Setting an Agenda

When I met Caio, a twenty-two year old Brazilian Economics grad, he was just wrapping up his three month term in the Business English program at Westcoast English Language Center. Before that he had been enrolled for three months at the English Centre at the University of Victoria. While in Vancouver he was sharing an apartment with two other international students. They had captioned cable TV and one roommate had a computer with web access, although Caio wasn't a user.

For the month of June, the duration of the study, Caio was in transition. He was moving back to Victoria to finish his English studies at Camosun College, so that he could be near his girlfriend. His year of English immersion in Canada was to end in December.

Although the gregarious Latino was enrolled in formal language classes, he preferred to learn his English on the streets and in the clubs.

Caio: For somebody told me once, if you live here, as much as you can, if you live here for twelve months, you'll be able to speak English fluent. And like you don't need just to take courses, you can just talk with people.

Caio loved to talk, and he had lots to talk about. He read novels and newspapers and listened to the radio 2 hours a week, CD's about 14, television 8 and went to movies or watched videos approximately 14 hours. The pop culture content of the site suited his background and appealed to his interests.

Caio: It's like when you talk, when you talk with people in the street, you talk about this. You talk about music, art, books, all this stuff. I think it's very interesting and I think the class in the English school, should do like talk more interesting.

As listeners, we 'attend' more when we are interested. Interest often stems from a familiarity with the subject under discussion. Given the choice students like Caio would naturally gravitate to familiar content.

Caio: Oh, yes if we're talking about something that I want to talk, I think it's easy to understand because, I know like. If we want to talk about soccer. I know every, like what you're going to say, like I can figure out something what you can say. But if it's just like now and you say, open this site and you're going to listen to one conversation. I don't even know what they will say, and I think it's a little bit, that the difference.

Caio's goal in learning English was to be fluent enough to work in it in his native Brazil, where he hoped his Economics degree and a high TOEFL mark would land him in some international business setting. Fluency to Caio meant the ability to comprehend and engage in two-way authentic conversations on many topics and in some depth. When he wasn't on task, on my site, Caio was reading the Sao Paulo newspaper online.

Caio: I like that here we can choose whatever we like. Now, today we choose books and the next day we can choose music, or, I don't know that sort of thing. But I think it's better because it's more interesting, just like you can learn. You can learn English and using internet and you can learn English using. You know when you see the news, the interviews it's just like it's happening now.

Being part of the 'now' scene, which includes Web culture (de Kerckhove, 1997), is both an intrinsic and extrinsic motivating factor to young adults everywhere, including Caio, who after returning to Sao Paulo will probably stay in touch with Canadian culture via the Web.

Listening as Seeing

When Caio talked about his listening strategy using the transcript he often referred to his process as seeing, as opposed to reading. He watched MuchMusic, the music video program, a lot, because he liked music and watching the singers' mouths as they sang. Reading the formation of words on their lips, as well as reading their body language for context, helped him understand better. It's not so surprising then that Caio relates the static text of the transcript to a moving image of the speaker.

Caio: No, no I try to understand. Like, neither listening nor reading. It's like the pronunciation of the words, because I try to follow and when they, during their speaking, I try to follow each word to see how they are, how they pronounce each word. So I think it's between listening and reading.

Linda: So it's somewhere between that, then?

Caio: I think that I listen and then I read.

I interpret Caio's cognitive in-betweenness as a subconscious acceptance of mediated scaffolding, a sandwiching of meaning. He appears to only be aware that he is reading when he needs to fill in missing pronunciation connections. Text then becomes context. Because he is having to cope with the complexities of authentic speech, i.e. topic shifts, embedded idiomatic terms, back-channelling signals, etc., he needs the text to verify his understanding of these ever shifting contexts, to verify that he at least has the 'gist'.

Caio: Oh, I think that if I read first, if I read first it's better because when you read you know all the context that they will speak and then when you listen, it's just like, I know, I can, I can have an idea what they will talk about, so I can, you know understand some words, not the words, maybe I don't understand everything, but I understand the idea of what they are talking. It's good.

For Caio the transcript counters this lapse in association between the unfamiliar aural sounding word and the known read word. On the listening survey he commented that the hardest aspect of listening for him was the speed of authentic speech and the frequent use of unfamiliar cultural expressions. The transcript with its hypertext glossary attempts to address some of the vocabulary problem, but it's just a tool, and whether or not students use it is their choice. In our meaning making we constantly move back and forth between this conscious, bottom up approach of processing recognizable vocabulary, and our top down processing of schemata/context, always trying to fit the small pieces into the bigger picture.

When it came to previewing the vocabulary in the pre-listening section or jumping out of the transcript to check a word's meaning, Caio confessed to "just winging it", picking up the meaning through the gist of repeated listenings. His strategy was to listen first without the transcript and then with it, and if for a third time, without; always metacognitively aware of his bimodal processing.

Caio: I think the problem when we have interview like this, is because when the people who talk, they talk for so long. Every time they say, ah, ah, do, they say some words, without transcript maybe, you make mistakes in your mind. I made by myself. I tried to understand everything, the whole sentence, but when you read the transcript you read each sentence, each word, so you say this guy is speaking a lot and actually he could cut off some words, that will be the same meaning. That's what I think.

When engaged in listening, Caio seemed to be part of the flow of the aural, the whole sound sensorium of speed, pitch, intonation, and although reading the transcript, not really seeing it as text. When he says that his listening is somewhere between listening and reading, I am interpreting that cognitive process as a strategy of aural/oral imaging. If the input failed and there was no unconscious acquisition, he would consciously self-direct his learned strategies.



Jean François

A Cultural Sponge

I knew Jean François as a model participant fleetingly; always on time, ever curious and eager for a challenge. I got more of a picture of this twenty-four year old Brazilian, Agricultural Science graduate's exceptional character when I had the opportunity to speak to his homestay mother. She spoke glowingly of his interest in the project and his all round enthusiasm for learning and living in English. In all her years of opening her home to students she said that she had never had such a considerate, intelligent student whom she and her family sincerely enjoyed spending time with.

The son of a French diplomat, Jean François grew up in Sao Paulo attending the French Lycée and then studying in Portuguese at the university. He was at ease moving among different cultures and language groups, so the web culture seemed a natural extension of his worldliness.

Jean François: The topics we have in this lessons are really different from the traditional in our English schools. It's interesting because always I always learn many things about actualities in the cultural part. And then, usually the next day, I have informations to talk with my friends. And I learn many things, many new things, especially about Canada.

According to his survey answers, Jean François' favorite medium was audio; he listened 14 hours a week to both radio and CD's, television, 14 hours and videos/films only 2. As immersed as he was in the authentic real-time English world, Jean François liked the idea of being able to control slices of it.

Jean François: We know that we can work on it, so. We are not so...how do you say. For sure it's different because we can start, we can stop and go back, so it's different, but at the same time it's real, the words we use, the idioms, so it's different.

You sensed a kind of hunger for change with Jean François or perhaps it was a smoldering frustration. He was under a lot of pressure because he had to achieve a TOEFL score of at least 580 to be able to apply for graduate school in North America -- his goal before he returned to Sao Paulo in August. In his TOEFL class at WELC he was 'formally' listening to practice tapes but the instructor had control.

Jean François: The listenings are cassettes with dialogues. I mean, always they are they speak clearly and not fast. And it's not real, real way of speak. So it's easier, it's much easier. When you go out on the street, and then you go in a restaurant or some where and you speak with somebody, it's completely different. So I mean, that's...I mean when I go out, when I leave to go some where and I talk to somebody. It's like the same things, it's like the lesson, there is no difference. When you are at the school, the regular program, it's not so real.

The RealAudio world of the Web appealed to Jean François' thirst for authentic input.

Selective Listening

In the first session at the Web Café Jean François was listening so intently that he sat with his hands cupped over his headphones. As much as he prized control, he was determined in the first session to not use the transcript, choosing instead to listen through the nine minute interview twice before turning it on for clarification. By the second session, his strategy had changed.

Jean François: Then I go to first listening, without transcript. I just do it to get the main idea and to check how is my listening skills. So, for the second time I turn the transcript on, and also usually I listen. I listen and read together and looking for some parts that I find difficult. I mean usually when they are, they speak very fast, or... It's not constant. So when I read it becomes easy to guess the words I don't know by the context. I mean usually the second listening with the transcript it becomes clear, the whole interview.

"Active", "interactive" are words that continually crop up in Jean François' comparison of the Web listening environment to the classroom controlled setting. The transcript allowed him to actively monitor his listening process and selectively 'attend'. But was he listening when he was reading or just reading? Or could he subconsciously combine the two, blotting out the words?

Jean François: Yeah, I think it's possible to do it. I mean, you have to concentrate. It's not so easy, or you have to be used to do it. The first time it was a little bit difficult, because sometimes you are reading, and then you'll not get the meaning, so you'll stop reading but the conversation's going on, so it becomes confusing. But now, at the last lessons, it was possible to read and listen at the same time.

Linda: And still be listening.

Jean François: Yeah, it was possible.

As the sessions progressed, Jean François was convinced he was becoming a more proficient listener, to the point that he said he could feel it.

Jean François: And I improved for sure, since the first time I start.

Linda: That would be interesting...Yeah.

Jean François: Yeah, sure. I can feel it.

Jean François was the only participant who expressed that he felt that he'd improved. Unfortunately, I didn't pick up on his intuitive point of feeling improvement and interrogate it further, so am left wondering if this feeling of embodiment, being *in* listening, is the point where subconscious acquisition takes the place of conscious learning. Are the two aspects separate as Krashen (1983) hypothesizes, or overlapping progressions? Does the interactive tool environment not make embodiment clear when students realize through their actions that "knowing is doing" (Bruner, 1994). By his sixth class Jean François assured me it did.

Jean François: Like I choose to follow this because I knew that it would increase some way. And then I realize that it increase more than I thought because ah, the way of ,it's how do you say. The fact of being real interviews and the same way you have the transcript, you have all the tools in the lesson. So it's completely different than the lessons at school. So I realized that that way it was much better. It increased for sure.



Na Young

Living Free

Na Young was finishing a TOEFL prep class at WELC, not because she was planning to study at a North American University, but because the TOEFL class was the most challenging. She would spend about three hours in class each week practicing her listening comprehension.

mainly through TOEFL listening tapes, like the pre and post tests. June was her last month at WELC before moving over to UBC's English Language Institute for summer conversation classes. From September - December the twenty-one year old Korean English Lit major and aspiring translator was enrolled at Capillano College in academic prep classes, thus ending her year of immersion.

Na Young's track record of shopping around for the best ESL classes is evidence of her high risk nature and disciplined determination to expose herself to as many different English learning situations as possible. She started out in homestay, living with a Vancouver family, but when I met her she was sharing an apartment in Vancouver's West End with another student. In my tutorial business I've met quite a few young Korean women like Na Young who truly relish the freedom they have in our society, the freedom to live on their own terms and try new things.

Na Young: This is my first experience to use the web. It's quite interesting for me. Because when you listen to something you can use transcript and another things. So, it's not boring for me.

Na Young reported that she listened to pop songs on FM radio, but otherwise spent about 13 hours a week watching television and videos/film. Following the initial walk through of the site, she quickly made the Web her own, checking out Korean news, music, etc.

Na Young: To use the computer is not traditional in Korea. It is more interesting because in Korea we just use headphones and the professor plays the tape.

Linda: You don't get to play it.

Na Young: No....

Linda: Just the professor controls it.

Na Young: Uh, huh, controls. And just we listen. It's very passive, passive listen study, I think.

Linda: This is...You like the control.

Na Young: I can control it. Play it, stop it. I can read it if I want to read, I can read.

Listening Freely

In the first session Na Young listened first with the transcript, then without. Later she fell into the same pattern as all the students of listening three times, first without, then with and then without.

Na Young: When I listen with the transcript, actually I concentrate on reading, not listening, I think, so. And later, after later, I listen again, I can understand easier, easier than before. So it is necessary and helpful, I think.

Na Young uses the terms transcript and context interchangeably. To her the transcript is context, grounding the unfamiliar aural in more familiar text. Canadian pop culture wasn't a subject Na Young had been exposed too much, so names like John Candy, The Group of Seven were all new to her. With no schemata to fall back on, she relied on the background notes and links to help put the interview in context. What context really meant for her, was the ability to 'follow' the speaker through the transcript.

Na Young: I think the interviewee is so difficult to understand because it's not the exact sentence, and the correct sentence. It's not correct sentence. So I must understand through the context, and through the context and that's why it's too difficult to understand. So I must follow the style of the speaker. So that's why to listen it's so difficult to understand.

Interviewee styles varied greatly throughout the seven lessons, from Paul Gallagher's street tough Manchester accent to Michael Moore's flat midwest American twang. They'd drop endings, umm and ah, repeat, mumble, the whole gambit, just like we all do, making it quite a challenge for a L2 listener to follow.

Na Young's reference to following the style of the speaker is interpreted as imagining the speaker actually speaking, mouthing the words, so that the visual supports the gaps in the auditory processing.

Na Young: You hear clearly. I can hear clearly, I think.

Linda: Because you can actually see it, does that make you hear clearer. Is that what you're saying?

Na Young: Yes, I think.

What wasn't clear is whether this clarity was transferable without the transcript. Did hearing more clearly mean being able to visualize the speaker's words, hold them in memory, in effect "draw on the brain" as Won-Kil so astutely describes the cognitive strategy.

Na Young: I think after I listen something and check the context it's interesting and useful. Because when I watch the television if I didn't catch the new vocabulary or something it just pass through. But when I use the web I can check my answer and catch the new vocabulary.

What Na Young may be 'catching' is a remembered key word (Ellis, 1994, p. 538) that has been stored as an image in relation to other words. The opportunity for repetition with the visual text source is a training ground for developing such cognitive strategies. Once learners like Na Young become metacognitively aware of how ephemeral word hangovers in memory can be, I posit that a conscious effort to keep 'catching' the flow becomes commonplace. Feeling more mentally active can be a freeing feeling. When Na Young talked about how free the computer made her feel, she visibly became freer in her body, her speech and eyes more animated.

Na Young: First of all I feel free like this. If I studied in class, ah, maybe, aaah, especially in Korea we must sit down erectly, and we listen to the professor and ah the class. But if I use the web site in here, I just use



Won-Kil

Book Bound

Like Jean François, my scant observations of this delightful twenty-one year old economics major were confirmed by his homestay mother. According to her Won-Kil spent much of his leisure time in his room apparently studying English, which I interpreted to mean, reading, memorizing and filling his head with rules. Rather than being out in the community living the language, he seemed to prefer reading it. Won-Kil is what is termed a field independent learner (Ellis, 1994), someone who prefers an atomization of experience rather than the whole. Perhaps it was his temerity that held him back from participating fully in his Canadian immersion opportunity. If so, I reasoned, then the promise of private computer generated eavesdropping sessions would probably appeal to him.

Won-Kil: I think this web is not very useful. Well I think it's better than cassette tape and video, but I need, not computer, just people interact each other very actively. Not just one way, it's both sides, back and forth.

Won-Kil is right of course, although seemingly not acting upon the knowledge and taking more advantage of his Canadian immersion experience to interact. His motivation to learn English was more of an academic exercise than out of a desire to get to know the culture and people (Dickinson,1995).

Won-Kil: Korean's need, not just me, all Koreans need English to get a good job. Well, I don't know how can I use English in my job. But I just studied it because everybody else does it, so I do that. Oh, stupid. (nervous laughter)

Linguistic Gamer

Although admittedly a follower, Won-Kil nonetheless contemplated his moves deeply. His nervous laughter, unassuming manner and closed body language belied a confident keen observer who studied the big picture of the game first and then got down to details. Wiith each video entry he seemed to loosen up and let his secret bubbly character erupt. True to his survey of the game, Won-Kil immediately attached himself to the transcript, reading-while-listening.

Won-Kil: Without the transcript it was almost impossible to get the idea. And even though I used the transcript and I listened to it, over and over again, but some parts of the conversation is I couldn't match the transcript.

This inability to match the utterance with the text transcript could be due to a lack of cultural knowledge as much as a purely phonetical/lexical problem, but it highlights the conscious strategizing that Won-kil engaged in. He gradually weaned himself off the transcript, listening the first time without, then with and then without again, the typical participant pattern. With the transcript he reported using key word processing, yet did not acknowledge it as a useful strategy.

Won-Kil: I don't have any strategy about the listening. I first, I just listen carefully what they are talking about and the next time with the transcript, and then with this next time, I can get the word visually, more like not depend on just ear. I depend on eye and ear. And the second time I just go through the listening without the transcript. And that's it. It's too long conversation. I just think one or two key words are, will not help me get the main idea of the conversation. Just listen carefully is what I can do about the conversation.

While he saw the transcript as a 'test' of his listening comprehension, he didn't want to get too attached to it because as he observed "in real life there is no transcript." Using the transcript and the web schemata building links seemed to detach Won-Kil from the holistic listening experience, casting him into a testing environment rather than a culturally experienced one. He reported that the cultural content didn't really interest him. And yet he was clearly engaged linguistically because he had no problem reporting his metacognitive awareness.

Won-Kil: When I listen the first time I listen to something. The second I listen to the other, different things. And the third time also I listen to different thing. And finally, I combine all the things, like from here, from there, here from there. And I combine and make a sentence, and I understand it finally. So each part, each each attempt I can get it, the main idea. So when I finish the whole thing, I put them together, each other and then I get it, what is that, and what it's all.

When Won-Kil says "from here from there", I wonder if he's referring to imagined locations in his brain where he retrieves memory. Are these places encoded visually, or just felt as unconscious body knowledge? As he describes this process of putting the puzzle together, he evokes the image of a sorting machine, the mind as machine, retrieving lexical information, adding it to schemata, running it through the syntax grid and throwing it up on the screen. Do we intuit ourselves as computer peripherals? Is the computer an extenuating device as De Kerckhove (1997) claims?

Won-Kil may, or may not, be conscious of how his mind operates, but he does know that it is in his body. In his third on camera reporting session he explains his memorization process as "holding", evidence that shows he is unwittingly embodied as he reads and listens. He is conscious of using grammar rules and stopping and trying to memorize or "hold" words in his brain for translation later, a strategy that he knows in retrospect he should not use.

Won-Kil: I just listen, listen, listen. I just hold it, if I don't use my grammar skill when I'm listening. I don't like that because it's like...like I, it's like translating from Korean and then I get it. I think it's not good for how to learn English.

Research shows that having the transcript encourages interlanguage translation and grammar parsing, lower processing orders normally associated with beginning language students; scaffolding (Lieberman & Linn, 1991) that only falls away with time and acquisition.

Won-Kil: And when I see the transcript, yes, I use the grammar more than when I listen without transcript, because the seeing and hearing is different. Seeing and hearing are different. Usually, ummm. It's very different because hearing, it's just I heard one word or one character. But when I see the transcript I can get the whole sentence at the same time. And at that time I can use my grammar easily, because I can see how the words is connected with each other. But when I hear it, my memory is not so good, so I can't draw the sentence. I can't write down the sentence in my brain. It's not possible.

The assumption is that exposure to authentic language with the help of tools like the transcript, which stimulate complex processing like "drawing on your brain" or "chunking" (Vanderplank, 1992), will release spare capacity for conscious language learning, and therefore, in the long term accelerate the overall comprehension process.

Won-Kil: The very first time, maybe I have no idea what the speaker will say. But she speaks continuous like that, I catch, I think a little bit, I catch the word. And then I thought it's a key word and I use, like my imagination, made up my story. And then if my, the story which is, was made by my brain and the real story is the same, or, so maybe like ah... similar, I can solve the problem.

We use narrative to construct our realities all the time (Bruner, 1995) yet Won-Kil did not see the language learning importance of listening to other people's stories and then telling his story about what he learned. His propensity to atomize and focus on function rather than form obscured his learning achievements. Although he was an enthusiastic informant he contended all along that the exercises were not teaching him how to listen, that he was not "learning language

that would help him live.” He summed up the usefulness of the language learning experience from the six sessions as, “Just know what is real English. Yeah, that’s right. English is difficult. Very difficult. That is all I found.” As cynical as this statement sounds Won-Kil did have some positive assessment of his overall fluency improvement from his Vancouver immersion experience.

Won-Kil: When I first came here and when I turned the radio, it’s all, like noise. (laughter) But now I, yesterday I turned on the radio, and maybe not perfect, I can catch the main idea of the topic. It’s a news program. CKWX, yeah. And yes, I can catch what she say. I don’t know the details, like ah, on and on and duh. I couldn’t catch it.

Whether Won-Kil knows it or not, this is tangible evidence of improvement, not attributable to seven experimental lessons, but definitely attributable to his overall exposure, the big picture that Won-Kil has a hard time envisioning.



Terry

Career Driven

Terry was the last to sign up for the project, and did so at his teacher’s urging. After almost a year in WELC’s International program the twenty-five year old architecture student had worked his way from a culture shocked beginner to an intermediate Business Education

graduate. He was spending the month of July bussing around the United States before returning home to his studies. Not surprisingly, travel plans were more on Terry's mind than immersing himself in Canadian culture; he missed two critical sessions.

Terry's goal was to achieve a high mark on the TOEIC (Test of English for International Communication) test, the benchmark English fluency requirement for most Asian businesses which emphasizes listening proficiency in the general workplace, everyday functional language. Terry has his job prospects set on working for a construction company that deals with overseas suppliers, so immersion studies abroad to achieve a good TOEIC score are considered a worthwhile investment.

Terry: I think the place is one of the most important thing because if you stay in your own country it is difficult to get opportunity to speak English, but now I am in Canada, so I can speak English whenever I want. Because I am living in homestay, I can speak English with my host mother every day. Also I think the teacher is important because with teacher we can speak, we can learn different thing, depending on teacher.

Terry hoped the extra exposure in the project would help his general comprehension, but admittedly he was his own worst enemy. While he was fairly social and outgoing, I got the impression Terry spent much of his leisure time with fellow Korean students¹³ speaking Korean. Students, like Terry, often have to make a special effort to break out of their linguistic group while they are in the target language community. Terry audibly hadn't. He reported only listening to 3 hours of radio a week and 1 hour of CD's. Otherwise, TV, with captions, was his medium of choice.

¹³Koreans in June 1997 made up about 30 per cent of the enrolment in private language schools in Vancouver.

Listening Anxiously

Terry was fighting a love/hate battle with TV captions at home, and the same performance anxiety spilled over into the Bridge project. His transcript use fell into the typical pattern of off/on/off and there were no pictures for help.

Terry: When I use transcript I should say I didn't listen, I read. Actually I tried to listen, but it's very difficult. If I listen to the conversation it sometimes, it ...Reading, I should say, reading is much easier than listening to understand the conversation or everything. So when I was, when I am at home. When I am watching the TV, sometimes I use the caption to understand, but nowadays I don't really want to use the caption because it doesn't help me to, for my listening. It doesn't help me for my listening, so I try to listen without caption.

The audio only experience focused Terry on his reading/listening dependence. In his determination to make a breakthrough and ween himself off the literal transcript Terry spent more time using the pre-section schemata building tools like the background links and contextual hints, "Questions to Keep in Mind".

Terry: If I listen to the conversation without background it's difficult to understand their conversation, because ah, I can guess what will they say. So...sometimes even though I don't understand their conversation exactly, but I can guess their next conversation and their next speaking. So I think it's very helpful to use background source before you listen to their conversation.

Having the opportunity to listen many times and at his own pace helped Terry focus on his inferencing and key word strategies.

Terry: At first when I listen for the first time I try to listen for the main idea and then after that, the second time I'll listen for more detail. Usually I don't care about the vocabulary, this kind of thing. More detail means, sometimes if I catch the one word, I mean hear vocabulary, I can imagine the situation or conversation. It could help me.

The transcript as context proved to be a helpful trigger for Terry. At the same time that he fought its negative 'crutch' connotation, he valued it for the feedback autonomy it gave him.

Terry: Just to test by myself, so I can test with the transcript and just to study vocabulary. That is the error. Not really I need. I don't think I really need much test. Because if someone had to check how much he will understand, maybe they need test. But by myself I don't think so. Not really.

Linda: So the transcript really becomes the test, the only test you need. The actual words.

Terry: I think so.

To Terry the Bridge as 'computer' was just a bigger, better more individualized listening tool.

Terry: If you use the computer for listening English or some language, it should not group just each individual work. So actually I don't think you really need put some problem, question I mean, true or false...

Linda: You mean, you don't need exercises?

Terry: I don't think so, for each individual work. Just you will use the computer, the computer for listening language.

CHAPTER FIVE

LISTENING WITH THE “BRIDGE” : A CROSS-CASE ANALYSIS

The purpose in designing and testing the prototype site, the Bridge, was to examine how it facilitated ESL learners' listening. Through a paper cut and Constellations' video analysis several themes emerged, notably the desire for and appreciation of an environment that supported autonomy. By definition (Holec, 1981) such an environment provides students with control. Control means the freedom to choose and choice, in the case of listening skill building, meant strategy development. This cross-case analysis distills student responses under the headings of control and strategy awareness.

Control

As much as the project wasn't set up as a comparison of traditional listening with cassette and text to the Web site tools, it became one in the minds of the participants who inevitably referenced this learning experience as “different” from or more “interesting” than...the classroom. The main difference was the opportunity to work independently, but still be connected “bodies in cyberspace” (Murray, 1998) legitimizing a sense of web community (Lave & Wenger, 1991) that translated to the ‘real’ world.

Tools, particularly the transcript, were the connectors to this community and gave students choice, the principal ingredient for autonomy in a formal learning situation, or quasi-formal setting such as the Web Café. From the start Terry was convinced that “he could read the article without dictionary or without teacher, without any help.” This sense of happily working alone, as opposed to being part of a group or a class that was expected to be moving along as one, was broadly reflected in student attitudes. There is actual glee in Na Young's voice when, she says, “I feel free like this.” The freedom she is referring to is the freedom to choose, not perhaps the

content, because she could not, but how she approaches that content, her style, her pace, her clicks—her control. Caio, on the other hand, did perceive the site as choice of content.

Caio: “I like that here we can choose whatever we like. Now, today we choose books and the next day we can choose music, or I don’t know that sort of thing...”

Archived or live, media that lives on the Web seems to carry the cachet of “nowness”.

“Nowness” (De Kerckhove, 1997) has currency, especially for the book bound pragmatist, Won-Kil.

Won-Kil: When I used the cassette tape and book. So, I used it. And then it’s useless...because yeah it’s not new. So, it became like garbage, garbage and it’s so like...useless thing. But computer not actually, it’s ah the internet. It makes no garbage thing.

To Jean François the “nowness” of the web content meant that it was topical and transferable to his community.

Jean François: “...always I learn many things about actualities in the cultural part. And then, usually the next day, I have information to talk with my friends.”

There is a plethora of information on the Web and not all of it is authoritative nor valued, but censorship is not even debatable. The pervasive view is that the Web will be the all encompassing information delivery source of “nowness”, and it will be up to the individual or an agent browser to do the sifting. The only option is either take control or be controlled.

Control to the language learner, in the context of this site, meant being able to monitor themselves, having a transcript and not a teacher to evaluate their comprehension. Making choices in the privacy of a work station versus publicly in the class lessened the personal risk.

Jean François: It’s really different from a classroom, from a school. So, I mean, we feel, not like not pression (pressure), we feel like by ourselves. So, that what...it’s nice. That’s why I like this kind of lesson.

The only pressure the students feel is what they impose on themselves as they monitor their listening strategies. Listening involves the constant monitoring of the state of one's comprehension by the listener (Brett, 1997). The point of using the transcript (RWL), as all the informants acknowledged in their reliance on it, is to understand and carry forward a correct interpretation into the next part of the discourse, rather than proceed with flawed interpretations.

Strategy Development

One strategic constant was already built into the study—the transcript. The other, the students' commitment to report on camera was a construct of the study, but a pre-planning strategy nonetheless. Together they promote student agency, defined as a commitment to applying learned strategies to 'real' world authentic interaction.

RWL as Context

After the first session, all the students fell into a similar pattern of using the transcript. They would first listen to the interview without the transcript and then with it, and then the third time, without. In the first face-to-face interview after the fourth session, participants reported on their perceived differences in their strategies when they had the transcript and when they didn't. What changed? Were they reading and not listening? Were they listening and not really reading, or could they discern whether the two cognitive processes were happening simultaneously?

Caio articulated his awareness as "somewhere in between", like, neither listening nor

reading. It's like the pronunciation of the words...". For Jean-François it was "possible to read and listen at the same time"; doing it together made it "clearer" for Na Young,; Won-Kil used his "eye and ear" to match key word inferencing and Terry tried to put them together but didn't listen "...I read."

The questioning focused the students on their RWL process to determine how much of the textual context they 'held' and transferred as images or internalized as linguistic rules that could then make the third listening an automatic reproduction. On this third listen without the transcript the assumption was that participants would substitute their own 'video', i.e., their narratives or stories as a kind of visual re/presentation of what they heard. Aural comprehension when supported by hypertext seems to become more of a visual comprehension experience, the visual replay of text and associated images completing the knowledge, filling in the gaps, making listening "clearer". Epistemologically this supports Papert's (1983) finding that "in learning environments where individuals with diverse styles of thinking have equal opportunity to the tools they need, they build their own (micro)worlds." The '(micro)world' in this case is construed as the gist, the main idea of the 9-10 minute interview that students built as they listened. Won-Kil would "...catch the word. And then I thought it's a key word and I use, like my imagination, made up my story." Terry as well would "...catch the one word, I mean hear vocabulary, I can imagine the situation..."

Having the transcript makes the construction of meaning an explicit process, a narrative one in some student's cases; one, at any rate, that made listening more manageable. This explicit process also legitimizes guessing, which mattered a lot to Terry, who felt overwhelmed by the scope of the authentic interview segments, and yet, was reluctant to rely on tool help.

Terry: I try to listen to the conversation. And then...actually I try to go together. I mean both listening and reading. But sometimes it's just listening. Sometimes it's reading. So actually. How can I say. Actually, it's difficult to go together.

When the two cognitive processes did go together, when the participants knew that they were reading and listening simultaneously, in full guessing/memory mode, they would express this awareness as listening "clearer." Such a notion begs the question, which came first, the word or the thought? Can we only think if we have signs (words) whose meanings are culturally and socially embedded? Or is it as Vygotsky claims, "The very essence of human memory is that human beings actively remember with the help of signs" (Bakhurst, 1996, p. 210). Jean François' reflections on his reading-while-listening process support this notion.

Jean François: For the second time I turned the transcript on. And also I usually listen and read, listen and read together, and looking for some parts that I find difficult. I mean usually when they are, they speak very fast. It's not constant. So when I read it become easy to guess the words I don't know by the context. So, I mean, usually in the second, the second listening with the transcript, it becomes clear, the whole interview.

Na Young's response also vindicates this positive, active use of signs to inform meaning.

Na Young: Ah, you mean listening through the transcript. Ah, listening and reading together.

Linda: And what do you think happens when you're doing that together.

Na Young: Together...ummmm.

Linda: Can you talk about that.

Na Young: You hear clearly. I can hear clearly, I think.

Linda: Because you can actually see it, does that make you hear clearer. Is that what you're saying?

Na Young: Yes, I think.

In asking the students to tell me how they thought their mind processed aural and visual input (RWL) I was asking them essentially to explain their relationship to their mind in their body. Turkle (1995) says young people who have grown up with the personal computer see their minds in a radically decentralized fashion.

“Connectionist models of how the brain works gained wider acceptance in the 80’s with it’s biological, dynamic image of emergent intelligence rather than machine information processing images rooted in notions of fixed logic... By accepting your mind as an interrelational source situates it even more in the body/world because of the necessity to bump up against other minds, virtual or real.”

Although my twenty-something participants had not grown up with computers, I conjecture that their minds are in synch with their bodies, even if they are not aware of the logic.

CHAPTER SIX CONCLUSION

The Bridge web template is one example of an authoring tool, specifically a listening authoring tool. There are many authoring tools available at varying costs, convenience and format. Customizing CALL and creating multimedia templates often involves the purchase of expensive hardware, the commissioning of costly software design, not to mention the expense of training personnel. Because of these big budgets there is pressure on CALL researchers to justify the expense in terms of learning outcomes. Not surprisingly then researchers like Brett (1997) have conducted comparative media studies in the hopes of providing quantifiable evidence that one form is more effective than another. The complexity of multimedia and the complexity of the individual, plus the ubiquitousness of the media itself, suggests too many external variables to make such effectiveness studies generalizable beyond showing as Brett (1997) did that these tools are “valued”. Research, therefore, favors methodologies that use verbal reports and interviews to provide insights into learner traits and strategies whose findings can then assist in future CALL development and implementation. While this study employed qualitative methodologies to study the Web environment’s ability to facilitate listener autonomy, it could not conclude that what students learned could be transferable and therefore, generalizable. Like Brett (1997), this researcher can only conclude that the learning was a ‘valuable’ experience that could prove even more valuable, i.e., effective, with more exposure.

The study asserts that continual exposure to this type of controlled listening on a web site, i.e., bumping up against virtual talk with tools, prepares second language learners for the real unmediated world. Student claims that they are engaged in guessing, discovering clarity through actively matching pronunciation with text or remembered key words, seems to provide evidence

that a multimedia approach in offering 'hooks', points of access (Murray, 1998), helps to embody the learning/listening process. The assumption is that if knowledge is in the body, its essence can be *felt*, conceived as stored, and hence, retrievable.

As a 'thin' ethnography the study validates feelings and through digital analysis using Constellations endeavours to legitimize them and open them up to scrutiny. Only one participant, Jean François, said that he "felt" that his listening had improved, and that was when he was interviewed face-to-face after six lessons. He said it in a very assured and confident manner, but didn't elaborate on what "felt" meant. On the other hand, Na Young responded that she could not honestly "feel" any improvement. She could tell that her ability to understand native Canadians had definitely improved since first coming to Canada six months ago, but after only four weeks and six sessions of specific listening tasks on the Web, she could not say that she noticed any marked change. Neither could Caio, who said his listening was improving every day, "because I don't just do this to improve my listening. I watch TV, I talk with my Canadian friends." The participants' comments highlight the complexity and messiness of the task of rigorously making any claims that treatments (specific lesson strategies) and not the overall culture (Bruner, 1996) are the convergent causes of improvement. Won-Kil was a perceptive and articulate learner who was quite conscious of using his memory to "draw or write them (the text) in his brain", but when asked to evaluate whether he thought his listening had improved as a result of using these consciousness raising strategies he said that the only thing that had changed was his perception of English as a language, and that it was "very difficult", meaning it was a long process, a long journey of discovery. Just as the Web tools shaped the learners, they also shaped the tools, because their feedback on the design continues to shape my

journey with the authoring tools.

The purpose was to create an environment of autonomy and free choice of learning style. As a researcher/designer I shared the same autonomy in choosing the theory and practice to guide my site design and research design. The study was a success in regards to promoting teacher agency as action research. Only followup interviews with the participants would confirm or refute the study's success in promoting their listening agency.

In an attempt to get a more rounded or triangulated picture of the participants' agency, the Listening Habits Survey and pre and post TOEFL test graphs act as visual measures. I use the term measure, because the data collection and analysis were not scientific and therefore, the scores are not quantifiable. Treated as indicators and supported by the participants' stories, the graphs do however, provide ground to extrapolate some correlations between media culture and place of origin. For example, the Brazilian males listened to more music than the Asian participants, both female and male. These attitudes and aptitudes of engagement could be construed as factors in the positive and/or neutral gains in the pre and post TOEFL test. This triangulation premise of including quantifiable measures with ethnographies would seem to bear further examination as a framework for longitudinal, more indepth studies.

Within the parameters of this study I can not forge any conclusions about the relation of active strategic training to second language development because it's an untenable position according to Ellis's (1994) review of the research. What I can make are suggestions for future design and research based on what the students did, what choices they made and how better to facilitate these. "Activity is", as the Soviet philosopher, Ilyenkov (Bakhurst, 1996, p. 214) states, "the root of consciousness". Participants' descriptions of their listening strategies demonstrate how cognitively active they were, even to the point of saying that they felt active.

I am interpreting this articulation of 'feeling' active to be a measure of heightened consciousness born out of the activity, but can not claim that their 'feeling' active is in any way commensurate with actual, explicit measurable achievement. In an autonomous environment it is up to the student to make those value judgments. It is the hope that in taking responsibility for their learning, i.e., making choices, students are also evaluating the success of those choices.

Implications for Future Research and Design

Design

Participants' reliance on and appreciation of the simultaneous reading-while-listening function further substantiates the hypremediated transcript's strategic usefulness and inclusion in existing and future language learning software programs and web applications. Research on subtitles use (Borras & LaFayette, 1994) has generally focused on its use with video, not audio; the combination of streaming audio with a hypertext transcript is an innovation on this recycled strategy. With the availability of digital tracking technologies to support more quantifiable data new media interfaces such as the Bridge web template deserve more scrutiny.

As discussed earlier, RealAudio technology and the funding for programming expertise were not available to provide a faultless player in the active listening section that would allow students to rewind or fast forward with the text synchronized with the audio, and this was clearly a frustrating factor. The audio and text are separate entities on the site. If you click the transcript off and listen for awhile without it, and then turn it back on, you have to scroll and find your place. This was exacerbating for the students and explains why they often did not completely listen through the whole interview, either with or without the transcript. Because the player has

no memory, students could not pause the interview, go to another section of the site for clarification if need be, and return to their point of departure. Clicking on a highlighted word when working on a PC takes you to the glossary and lets you return to the word in the interview by going to the top of the glossary and clicking return. Unfortunately, there is no highlighted vocabulary hypertext function available on a Mac because the Java virtual machine in Progressive Networks' RealAudio application was designed for the PC platform and is too unstable on the Mac platform. Such inadequacies of design would have to be overcome if another template interface was to be developed.

The point of autonomous multimedia listening on the Web is not to duplicate what can be accomplished using a tape recorder and book (Levy, 1997), but to expand on the success of past methodologies. Rote repetition, like that encouraged in former audio-lingual programs, fell out of favour, but the opportunity for repetition repackaged on the Web as on-demand seems to have stimulated new interest in the strategy. Whereas books are restricted to a few pictures or short articles for contextual schemata building, the web links offer an abundance of background reading and viewing. New ways of compacting key words, links and glossaries through a more densely hypermediated transcript appears to be the route to go. This reformatting would necessitate a more imaginative, creative use of the text/graphic interface of the web screen, essentially offering better writing with the audience in mind. As for the necessity of including comprehension checks/exercises, it becomes a matter of choice—books do not self-correct, web templates do. The comprehension checks in the Bridge mainly focused on vocabulary, students weakest area as indicated on the Listening Habits Survey and in their comments, and the easiest feedback to program. In an expanded funded version more innovative inferential questioning

formats would be incorporated, versus the straightforward easy to program True/False examples. One far-fetched scheme would be to create an interactive version of Mohan's Knowledge Framework (1986) as a post-testing function, whereby students would fill in blanks in a box template under headings like description, sequence, choice, classification, principles and evaluation, and get instant feedback. Such an exercise acknowledges the multimedia, multi-purpose nature of the site content, which incorporates and encourages listening comprehension, as well as reading comprehension. Other graphic representations of knowledge structures worth pursuing as interactive pre or post exercises are overview maps and tree graphs that Tang (Chun & Plass, 1992) found facilitate comprehension in ESL reading.

Interest is widely acknowledged as the prime motivator in listening. The Web, as home to all the broadcast media on an enticing on-demand basis offers second language learners a choice of interesting listening. But, this study maintains, ESL learners can not take advantage of that choice without tools to bridge their comprehension gaps. The Bridge is a prototype of a web template that simulates a lesson interface to that authentic web listening world, thereby, providing structure where there was none.

The site uses original broadcast interviews rather than downloaded archives because of quality considerations. Web technology is improving rapidly, but until end users have faster access and better sound quality they will not be lured to listen; a 28.8 stream over a telephone line is far from radio quality. Nonetheless, it is important, as this study testifies, to experiment with current technology, both on an intuitive and theoretical level. The challenge to web pedagogue developers is to intervene, seek partnerships with content producers/broadcasters and shape technology before it shapes us (Goldman-Segall, 1998).

Research

This first use of Constellations as a tool to think with by Goldman-Segall (1994) and Halff, (1996), has greatly expanded its multi-purpose potential in the mind of this researcher. With familiarization came the realization of a missed opportunity to have students view their video comments and comment on camera about those comments, providing yet another layer of thick description. The video data could then be stored at a linked site, opening it to other “points of viewing”. Goldman-Segall (1998) envisions “ethnography in the postmodern era of the Web including the multiple voices of those with whom we work and play, as well as the voices of those who view our artifacts” (36).

Students could also be trained to use the camera as a personal assessment and/or content tool creating their own Constellations multimedia database. Reading applications lead CALL material development (Levy, 1997), and listening comprehension is most often tested as reading. But since spoken fluency is the main objective for the site’s international student market, it would be more beneficial if the listening tasks could be tested orally, either as simple voice mail or using a web application. The on camera questionnaires focused on metacognitive listening strategies, but could have, in hindsight, included some oral content comprehension assessment which would have added yet another layer of learner description.

Oral Testing Software (OTS) developed at Brigham Young University by Larson (1997) <<http://humanities.byu.edu/language>> incorporates many of the multimedia features of Constellations software. It is composed of three separate modules: a Test Preparation Module which is a template similar to Constellations incorporating video, graphics, text, or sound as elicitation prompts; a Test Administration Module and a Test Evaluation Module. The developers see OTS as an assessment tool, but it could, like Constellations, be used as a

template for creating listening/speaking content.

Rubin (1994) and Brett (1997) call for further research on exactly *how* the various pedagogic elements in multimedia, i.e., task types, feedback types and learner types, impact on success rates. While this study focused on a specific learner strategy, reading-while-listening (RWL), it did not, for funding and technical reasons, track students use of the transcript or other site tools using available software that records students' destination clicks. Such hard and fast data would allow for the correlation of patterns of use with on camera verbal explanations and possibly lead to more generalizable results that could, if found effective, substantiate the funding of costly and complex research designs.

It is the study's hypothesis that RealAudio web sites, such as the proposed Bridge prototype, can fill part of the perceived demand of international students for authentic listening contact and chart new language learning territory in cyberspace.

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Appendix 1: Recruitment Poster

**Want to improve your Listening Skills &
Use the 'Web' (internet)**

UBC researcher and former WELC Instructor, Linda Earl

Needs: 5 upper intermediate to advanced level students

To: Commit to 2 classes a week

Where: Gastown Language Lab

When: JUNE STUDY BLOCK June 2 - 25 - Mon & Wed - 3:30 - 4pm

MUST AGREE TO:

1. Take a short pre & post listening comprehension test (TOEFL).
2. Commit to all 8 classes in the study.
3. Consent to go on camera. (The entire study will be videotaped.)

Interested???? ..then COME TO

Information session & Interviews: May 14th, Gastown Language Lab - 3:30pm

SEE YOU THERE!!!!