

EXCHANGING IDEAS WITH PEERS IN NETWORK-BASED CLASSROOMS: AN AID OR A PAIN?¹

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ABSTRACT

Computer-mediated communication can be a powerful tool towards literacy development as its text-based nature supports sustained reflection on classroom exchanges. This exploratory study examines the nature of peer exchanges in two partially network-based classes and the conflicts learners face in this situation where all information is text-based and archived. The classes combined computer-mediated and face-to-face elements in teaching content courses to students completing a BA in Contemporary English Language. This paper provides a picture of how learners used the available technology to interact with peers and their comment on how this mode of delivery extended their traditional notions of learning. Data include archives of discussions, learning logs, the tasks completed, responses provided, and student interviews conducted at the end. The data were inductively analyzed to find emerging themes following a reiterative process of substantiating and elaborating the themes. A variety of responses was evident where students were using situationally-relevant language to interact with and learn from each other. The data indicates that students develop a sense of personal accountability arising from the high visibility on the Web which was seen as unique yet threatening component of this mode. The paper evaluates the powers of the Web in terms of students' experiences and comments.

INTRODUCTION

A massive outlay of resources is being channeled into electronic modes such as Web-based delivery in universities world wide and "there are many challenges facing policymakers, educators and students as 'traditional' universities 'virtualize' themselves through the new technologies" (Evans & Nation, 2000, p. 175). However, if practitioners are to determine "how to drive rather than be driven by" (Laurillard, 2000, p. 135) technology, we need to understand the effects of Web-based pedagogy from the perspective of the learners -- especially ESL learners. Given the central role of language in learning (see, e.g., Halliday,

1993; Wells, 1994), being active in interactive Web classrooms (used to mean partially or fully network based classrooms) may pose a tremendous challenge on ESL learners. Unless we know the demands posed by language, as ESL language educators, we cannot fully evaluate the pedagogic power of the electronic mode and plan a way forward.

In this paper, I will describe the quality of peer exchanges in two partially Web-based classrooms and then discuss the personal conflicts and pressures experienced by Cantonese speaking students completing BA degrees at a university in Hong Kong. The focus is on the collaborative learning and the conflicts arising from the implicit language and social demands imposed by computer-mediated communication (CMC). The paper analyses the discourse of the Web classroom and then draws on self-reported data to examine the ways in which learners evaluate and discuss their own participation and resultant learning. The purpose is to understand how ESL students make use of Web-based classroom experience by looking at network-based classroom discourse and examine the ways in which this use is perceived by participants as an aid to learning.

THE BACKGROUND LITERATURE

Socialization

Many educators place dialogue at the center of the process of teaching and learning (e.g. Laurillard, 1993; Ramsden, 1992). Laurillard, for example, believes that technologies have a rightful place in higher education if they incorporate a critical dialogic element (p. 98). The increasing recognition of the place of dialogue arises from recent theoretical perspectives within the general literature on educational knowledge (see, e.g., Kafai & Resnick, 1996) where we find an increasing belief that all learning is fundamentally a social process, the result of interaction between two or more individuals and their contexts (see Kafai & Resnick, 1996, for a thorough discussion of constructionism within the technological context).

Vygotsky (1978) pioneered such a sociocultural approach in which the experiences at the social level -- communicated and shared with a community -- were seen as crucial in internalizing knowledge. Vygotsky (1978) has argued powerfully that the social process by which learning occurs creates a bridge that spans the learner's "zone of proximal development," in such a way that what one is unable to accomplish alone can be achieved successfully with a more capable peer or with a teacher. Although critics who believe in the centrality of individual cognition have questioned the primacy Vygotsky places on the sociocultural dimension (see, e.g., Bereiter, 1994), there is a general recognition that social experiences define and are defined by individual construction of knowledge (Savery & Duffy, 1995). In this process of construction there is constant interplay between social processes and individual cognitive development (see Bruffee, 1986; Rorty, 1979). Indeed,

within educational research a sociocognitive paradigm of inquiry is gaining ground (see, e.g., Keeves & Lakomski, 1999). Examining the impact of paradigmatic differences in educational research on research into networked-based education, Kern & Warschauer (2000) make a three pronged distinction between structural, cognitive, and sociocognitive perspectives based on differences in orientation, methodology and data. The theoretical underpinning for this paper lies at the extreme end of the sociocognitive paradigm. At the heart of this paper lie the social processes and contexts as well as how the two were co-constructed by the students of two Web-based classroom communities.

Socialization and Web-Based Second Language Classrooms

Second language researchers have discussed the importance of the social context in the development of second language awareness (see, e.g., Lantoff & Appel, 1994 for a Vygotskian perspective). Interaction with peers is seen as an essential element in learning and plays a central role in language learning as studied by many researchers within various cultural contexts (see, e.g., Crago 1992; Norton, 1997). Computer-mediated communication combines several features which make it a powerful new medium of interaction in the classroom (see, e.g., most chapters in Warschauer & Kern, 2000). In this kind of communication, the interactive and reflective aspects of language merge in a single medium. Specifically, the online environment allows text-based interaction that incorporates and records for future reflection, within one mode, the two functions of language use, the experiential and interpersonal (Halliday, 1995; Warschauer, 1997). Web exchanges on the computer takes place in a text-based form that is easily transmitted, stored, re-evaluated and can be rewritten (see, e.g., Davis & Thiede, 2000; Pellettieri, 2000). The advantages of text-based interaction increase when we realize that in a Web classroom there is poly-communication (many-to-many ; Carey, 1999; Davis & Thiede, 2000; Warschauer & Lepeintre, 1997). Added to that if second language learners are engaging in network-based exchanges to communicate their understanding of content, we could say that in such a case the learners are learning a language, learning about the language and learning through the language about the world (Hasan & Williams, 1996, p. xii [1]). Such learning goes on in face-to-face as well as Web classrooms, but in the latter it is permanently recorded and can be revisited, rethought, revised, discussed, or argued over. Zuboff (1988) notes one difference between "orality" and electronic "textuality" in that orality is by nature not "on the record," while CMC, which can be printed, forwarded, and otherwise manipulated, is by its very nature always on the record.

So, Web classroom data of poly-interaction is often archived and is different from the face-to-face classroom discourse which is public but not available at a later time to look back on. In the Web classrooms with free access for all participants at all times, every contribution from learners and teacher remains "publicly visible." There are, thus, dimensions of visibility and transparency that may not have been discussed in great detail in the literature. Shetzer & Warschauer (2000, p. 180) do attract readers' attention to the issues of on-line privacy as well as safe and polite behaviour. This is an important point of departure from the face-to-face classroom which is public but transitory in that we do not record every classroom exchange.

Advantages of the Web-Based Classrooms

Although traditional and electronic modes such as network-based pedagogy complement each other (Warschauer et. al., 1996) in terms of the built-in possibilities that each mode offers, there are a number of other differences in the learning opportunities and benefits that the Web can provide. The advantages discussed in the literature span a number of issues. First, the nature of student responses may be different in the electronic mode. For example, researchers reporting on the experience of peer response in face-to-face situations have found that students attach little value to a peer's feedback and feel reluctant to critique peers (Nelson, 1997; Nelson & Carson, 1998; Topping, 1998; Zhang, 1995). While researchers looking at peer response through networked computers, especially in writing classrooms (or comparing the two), have reported that Web-based response is easier than face-to-face response with more participation, more feedback and students gradually increasing in confidence (Braine & Yorozu, 1998; Curtis & Roskham, 1999; Davis & Thiede, 2000; Hartman, Neuwirth, Kiesler, Sproull, Cochran, Palmquist, & Zubrow, 1991; Kivella, 1996; Mobrito, 1991). A typical feature of the Web experience seems to be the greater quantity of language used in interaction (Ortega, 1997). Researchers who have compared small group interactions in the oral and network-based modes (Sullivan & Pratt, 1996; Warschauer, 1996) provide evidence of increased participation in electronic classroom discussions. This increase, one can assume, may lead to a more informed understanding of language use in real-life communication. However, there are demands on learners not only in terms of producing language but producing appropriate language within the context of the classroom community (see also Warschauer, 2000, for a discussion of demands posed by essential electronic literacy skills). In a face-to-face peer response situation, Villamil & De Guerrero, (1996; also De Guerrero & Villamil, 1994) found significant social aspects adding to the demands on language. Davis and Thiede (2000) discuss how participation on an asynchronous bulletin board developed discourse-related awareness as well as syntactic ability to abide by the social norms. The discourse-related demand in the process of exchanging ideas in a network-based situation may develop an awareness of practical aspects of language use. Indeed, in the literature on language awareness (see Ellis, 1998; Woods, 1995), consciousness-raising is seen as a process by which learners examine language in use and start to notice the alternative ways in which they can deploy linguistic resources to make meaning -- realizing that sometimes "there are no definitive answers" (Woods, 1995, p. 109).²

Researchers also report that the Web experience provides an equality of opportunity to all learners (Lamy & Goodfellow, 1999; Ortega, 1997; Warschauer, 1998) often neutralizing the advantage of the more "active."³ This leads to more interactive dialogue built into the learning experience as learners need not be concerned with pronunciation issues or be anxious of oral communication in the target language (Kivela, 1996). Time is another

advantage, especially for ESL learners, as learners get more time to think, to phrase responses, to participate (Sullivan & Pratt, 1996). Whether these component features of time do indeed enrich the learning experience remains to be seen.

Discourse of the Web-Based Classrooms

Despite the beneficial learning experience reported in the literature, the effectiveness of Web-based modes of delivery, like all other modes, needs careful planning as well as a critical look at the context of the classroom and discourse analysis provides the tool to do that. In the last two decades, discourse analysis has shown ways of looking at how social and cultural factors frame the production and interpretation of knowledge (see Scollon & Scollon, 1995; Van Dijk, 1997a, 1997b). Gee (1999) sees D/discourse with a big "D" which includes numerous elements such as non-linguistic symbols, characteristic ways of acting, interacting, emoting, dressing, and of course reading and writing. He argues that discourse analysis essentially encompasses analysis of language as one element integrated within a complex configuration of social practices.

In the second language classroom, the learners are learning to use language as a means of socialization (Candlin & Plum, 1999; Gee, 1999; Lea & Street, 1999) and thus the learning of a language includes the learning of discursive practices of the language and how communities use language. If we expect second language learners to communicate effectively, they would need to learn how to interpret and produce contextually appropriate language by recognizing, deconstructing, and analyzing texts they encounter (see, e.g., Dornyei, 1995; Swales, 1990; see also Sengupta, 1999, on rhetorical consciousness). The notion of discourse is intrinsically connected with the construct of communities (see, e.g., Bizzell, 1992; Bruffee, 1986) and the discursive practices of that community. Within a classroom community, individual students develop literacy together as community members and the specific properties of reading and writing are seen as reflecting, and in many ways determining, the interactions between the members within the classroom community. Discourse analysts, who have looked at classroom spoken discourse (Sinclair & Coulthard, 1975), have found classroom exchanges a distinct genre often consisting of "initiate-response-follow-up" moves. While within the feedback genre studied by writing experts (see, e.g., De Guerrero & Villamil, 1994; Johnson, 1992; Villamil & De Guerrero, 1996, for peer conferencing; Goldstein & Conrad, 1990; Pathey-Chavez & Ferris, 1998, for teacher-student), more sophisticated moves have been found. Indeed Villamil & De Guerrero (1996) found their Puerto Rican university students making complex moves such as advising, eliciting, clarifying, announcing, and so forth in responding to peers in a face-to-face situation. However, the moves within the Web-classroom discourse may differ considerably from the face-to-face classroom. By carefully examining extended texts of Web classroom discourse, this paper attempts to provide readers with a contextually-rich understanding of the processes of collaborative teaching and learning that took place and how the discursive practices of the community were seen by participants to influence their processes.

CONTEXT

Both classes studied were part of a 3-year BA in Contemporary English Language (BACEL):

- Σ Image and text: ESP (for year 1; henceforth I&T 1 -- with students referring to it as the Web or I&T Web whenever they mean "the network-based part of the I&T 1")
- Σ Image and Text 3 (for year 3; henceforth I&T 3 -- with students referring to it as the Web or I&T Web whenever they mean "the network-based part of the I&T 3")

As the affective dimensions of each class were essentially different, each must be described separately except for a few common features which can be listed collectively. Each lasted for a 14-week semester with 3 hours of teaching time allocated for each week. The three hours were divided between the two components, typically with 2 hours dedicated to face-to-face meetings while one hour was spent in the Web classroom (see [Appendix A](#) for extracts from outlines). All homework was also posted in the Web classroom. Each Web classroom incorporated the following links which are explained in [Table 1](#).

Table 1. The Links in the Web Classroom

Links within "I&T Web"	Description
A bulletin board	Discussion of central issues/concepts arising from the course. Participation in these discussions was voluntary, although the portfolio ⁴ required a selection taken from this component. The discussion threads were distinct in that they referred to specific issues arising from the input in the face-to-face classroom, while the discussions in students' own pages (see below) were more generally on the overall learning experience.
Materials	Materials used in the face-to-face component were made available on line.
Students own pages	Students had individual (but publicly accessible) pages where they wrote their learning logs and critiques of assigned readings. They also responded to classmates' logs. The log entries were compulsory, although students often discussed a range of issues. The teacher also had a page and kept a learning log.

A task page	Tasks were posted here. The one Web hour was spent on completing and responding to tasks ranging from analysis of texts to discussing processes and rationale for text creation.
Web resources	Typically one or two tasks required students to conduct a Web search, find appropriate Websites and write a brief description of the site for others.

See [Appendix A](#) for extracts from course outlines.

The Two Classrooms: Image and Text 1

This course (3-credits), starting in January 1999, was offered as an ESP elective subject in year one, semester 2 of BACEL. For the first year group the focus of "Image and Text" was on English for a specific purpose -- in this case for the reading, writing, and analyses of multimodal texts (focusing mainly on promotional texts). There were 12 students in the year 1 class: 1 male and 11 female students.⁵ In order to examine multimodality, students were taught to analyze the visual (Kress & van Leeuwen, 1996, 1997) and linguistic texts (Butt et. al., 1997) mainly from a simplified systemic functional angle arising from Halliday's (1995) three metafunctions: ideational, interpersonal, and textual. Students were as yet new to both systemic functional grammar and text analysis, although they were pursuing a core course on grammatical analysis which incorporated functional grammar (provided towards the end of semester 2). Students completed various Web-tasks on analyzing and creating multimodal texts. On the bulletin board, they participated in the discussions on the nature of multimodal texts, the nature of a writers' ethical responsibility; audience issues; analytic issues of analyzing long and short term goals, generic stages, persuasive devices. The following extract of a discussion thread will give readers a picture of what was going on:

Topic: How can you make a job application letter multimodal? Will it be more persuasive if it is multimodal? Student a (March 2, 1999 (16:56)) I think that a letter can be multimodal also. In order to make it multimodal, I will add some images and pictures to it. If I am writing an applying letter, I will insert a photo -- student a Student b to student a (March 2, 1999 (17:48)) Hi student a, you are right. I think to make a letter multimodal, we can... For example, ..when we sign our names, we can use different colours of pen to show emphasis. -- student b Student c (March 2, 1999 (17:50)) Yes, student a and b, I agree with you. In some cases of writing an informal letter, we can do many things to make it multimodal. For example, ... the other methods to make the letter multimodal. -- student c

Student d -Student i (March 3, 1999 (...))

Sima to all (March 3, 1999 (20:13))

Yes I agree - a personal letter can always be made multimodal - but I think student f makes an important point - the possibilities for making an official letter multimodal are more limited - although we could bold some words and underline other parts - it is still a rather limited visual mode - right? And adding pictures won't help persuade them to give you a job -- would it? Student a and f -- I would add a photo in the CV -- not the letter.

NOTE: No example of student work on the network-based classroom has been corrected for grammatical accuracy in this paper.

The assessment consisted of creating, analyzing, and presenting a flyer promoting the BACEL course and a learning portfolio (see [Appendix C](#)).

Typically their first semester at university was a period of immense change with new kinds of freedom, new experiences of more individual control of the learning process and new information overload coming from all directions. This semester 2 class was thus approached with trepidation. The students were somewhat anxious with the lack of a single correct answer in subjects such as "Image and Text" and as their learning logs indicated, they found the role of arguing for individual interpretation slightly problematic. The affective dimension of the class was interesting in that they seemed rather suspicious of my asking for honest responses (I had told them to write, "I have learnt nothing this week," if they so believed).

The Two Classrooms: Image and Text 3 (I&T 3)

This course, starting in 1999 January, was offered as an optional subject in year three, semester 2 of BACEL. Although the titles of the two courses were similar, the focus was mainly on semiotics and critical discourse analysis. These students had 2 1/2 years of experience of courses such as Grammatical Analyses, Discourse, and Pragmatics and thus seemed ready to build on their existing repertoire. Only seven students (two males and five females) chose the course I&T 3⁶: three were highly motivated as their final year dissertations focused on multimodal texts. The remaining four informally reported an expectation of an interesting experience as well as a genuine interest in advertising -- the predominant text-type analyzed. The bulletin board discussions as well as one thread are listed below.

The Image and Text (Group B) Bulletin Board

A forum for discussing topics related to Image and Text.

- Σ Ideology in multimodal texts - (6 messages posted 3/29/99 to 4/14/99)
- Σ Learning Portfolio - (10 messages posted 3/26/99 to 4/12/99)
- Σ Let's make the project interesting - (6 messages posted 3/8/99 to 3/12/99)
- Σ What is the image of a good teacher? - (13 messages posted 3/5/99 to 3/9/99)
- Σ Are all sign motivated? - (13 messages posted 2/23/99 to 3/5/99)
- Σ Are All signs motivated? - (2 messages posted 2/23/99)
- Σ Are all signs motivated? - (6 messages posted 2/22/99 to 2/23/99)
- CDA - (5 messages posted 2/10/99 to 2/12/99)

Are all sign motivated?

P (2/23/99 (10:50 AM)) *(not the same as p below)*

...It is dangerous to say that sign are all motivated or not. To play safe, it is better to see this in more detail. Firstly, what is motivation? Motivation to me is the relationship between the sign and the intended interpretation. The more obvious the motivation.

H (2/23/99 (11:14 AM))

...I think it's just depend on the situation (i.e. the context) and the cultural background of the interpreter. Sometimes signs can be highly motivated and sometimes are not.....

M (2/23/99 (12:17 PM))

... Can I say some signs are arbitrary (symbol) and some are not (icon and index)? If according to the article signs are never arbitrary, then can we say "symbol" is also a kind of sign....

Sima (2/23/99 (4:51 PM))

I hope that you guys realize that Kress and Van leeweun (sp?) are arguing that NO sign is arbitrary - all signs are motivated - do you think that those who have said symbols are arbitrary are talking about the product while Kress & VL are taking into account the process of sending and receiving signs?

p :-) (2/24/99 (1:37 AM))

hi sima, after reading your comment and other classmates' thoughts about 'are all sign motivated', i have some more thoughts to add, it's about the relationship between context and sign making:...

The bulletin board discussions and responses to learning logs were often full of pertinent points and there seemed to be genuine interest in discussing concepts such as whether all signs were motivated or arbitrary and the connotation and denotation.

As we can see, there were also some threads of discussion on the assessment items such as the project and the portfolio. The thread "Let's make the project interesting" was initiated by a female student and as a result of the negotiation, the project which had required making and analyzing a flyer promoting BACEL was changed to the creation of any multimodal text and its semiotic and/or functional analyses. Thus students created a range of texts, for example, one created a pamphlet for an English school that she was starting and another did a poster of hope for the new millennium (see an example in [Appendix B](#)).

These final-year students were under tremendous pressure at this time and the I&T 3 had added to the pressure, as their logs suggested. Indeed, I had realized the acute seriousness of the pressure only towards the end when a student wrote in her log that they would "drop dead" if I&T 3 workload was not decreased. I stopped the weekly logs and asked only for a summary at the end. Another important affective aspect was that these students had known me for years, I had taught them in year 1 and so they seemed to be reasonably frank as the following typical log entry suggests:

Student x :-) (FROM LEARNING LOG)

comments on the last lesson:

I know last lesson was like 'he'. The only thing I could blame was the 'great' weather and the 'nice' room...**

ok... last lesson was boring (heartbreaking, eh?) It was boring until 'Emily Lau came to save us!'... so you can see how important the examples and exercises you gave us in class are!

It was nice of you to talk with us about the assessments of the project and the portfolio in class. Thanks for your understanding!

Good news: You didn't speak that fast as before! Hey, keep it up!!!! Remember x the cop is here! *(Please note: (1) This student had told me I spoke like an express train in a previous log and I had appointed her my "speed cop." (2) Emily Lau is a political figure whose representation in the media images was discussed.*

METHODOLOGY

The general questions, addressed in this paper, were

1. What were the linguistic and personal dimensions of peer exchanges in the I&T Web classrooms?

2. Do these dimensions indicate that the network-based mode of delivery required students to learn language and content in new ways?

In order to answer these questions, I focused on the discourse of the Web classroom in addition to self-report data. Thus, I looked at

- Σ What kinds of peer exchanges were taking place i.e. how were students using the Web to respond to each other?
- Σ In what ways did the exchanges reflect learning to use language within a context?
- Σ How did students view these exchanges within the process of learning?

A research assistant and I read and reread the Web classroom data in the bulletin boards, student pages, and tasks pages in order to get an initial understanding of the main kinds of responses/ exchanges and the functions these responses/exchanges were serving. Arising from our reading, we agreed on some of the key functions and attempted to find a framework that would enable us to capture the functions adequately. Borrowing the notion of "moves" from Sinclair and Coulthard's (1975) framework, we were able to identify the major moves in our data. As we wanted to see what was being achieved through the Web classroom conversation and how it was being achieved, the definition of moves was modified from the original framework adapted from Sinclair and Coulthard, (1975) and we were further influenced by Tsui (1994) and Eggins and Slade (1997). Moves were defined as smallest coherent unit of discourse made up of one discourse act characterized according to its function in the classroom context determined by the preceding or following moves. It should be noted that discourse acts are not speech acts. Discourse acts depend on what linguistic item that came before and what follows -- as Tsui (1994, p. 9) argues that each discourse act is contextually determined by the moves that surround the specific act, unlike speech acts which are determined by felicity conditions. [Table 2](#) shows an example of the move analysis from student M's page.

Table 2. A Sample Analysis of Moves and the Discourse Functions

Exchanges in student 1 M's page	Moves (& functions)
Student 4 (2/24/99) Oh yes me too! I would like to have that book! M.. Pls!	Requesting (service)
Student 3 to Student 1 (M) (2/23/99)	
Hi M.., Could you show me the book you've read about Semiosis and Semiotics? I think I still have some confusion about these concept. Thanks! A.. (0:	Requesting (service) Criticizing (self)
Sima to M (2/23/99)	
Hey there M..! How was the break?	<i>Teacher: Socializing</i>
Did you think that it was useful to learn about Pierce and Saussure?	<i>Demanding (info)</i>
Can you find the book - I AM VERY INTERESTED!!	<i>Requesting (info)</i>
Be a bit more critical of the lessons M.. - you can criticize me - that way I can learn.	<i>Demanding (action)</i>
Student 2 @" (2/23/99)	
just to say hi!	Socializing (opening)
Also what u said agree agree agree	Agreeing (fully)
Student 1 M.. (2/23/99)	
Hi, Sima.	
What I had learnt from the last lesson:	Explaining (listing learning)
-Pierce's theory on seiosis & Saussure's semiotics	
(I have read a book before attending this term image and text lessons. I forget the book's title. The author makes a clear comparison between Pierce's & Saussure's claim on image & text. I find some chapters of the book are quite useful and interesting. Maybe I can share them with the other classmates if they wish to know some additional information.)	Offering (information) Offering (help/service)
-While you talked about the theory, you gave the example of "tree" throughout the teaching and I think it is very helpful for us to understand the concept.	Praising (assertive + offer opinion)

Thus the discourse function of each move was determined by the moves occurring before or after the move. The moves and their discourse functions were independently analyzed and then we sat together to compare and discuss inter-rater agreement.⁷ For student-student exchanges, there was full rater agreement after discussion. The categories were further checked out in the end-of-course interviews with students, and this information was added to the analyses where appropriate. In this paper, the scope has been limited to the data on the two most common moves found in student to student exchange only (all s-s exchanges are in bold in Table 2).

Next we examined the interview data. Two interviews for I&T 1 and 3 were conducted during weeks 7 and 13 of the course by me (the teacher) as part of ongoing individual consultation and feedback. These interviews were recorded and used in full. Then the research assistant conducted interviews with a random selection of students -- at least 3-6 weeks after the end of the semester -- after the research team had completed the preliminary analyses so that textual evidence could be shown to the interviewees when asking for their perceptions. All interviews at this stage were conducted in Cantonese and translated and transcribed by the research assistant. Four students from I&T 1 and three from I&T 3 were interviewed. The interview data were independently read and major themes were identified. Following data analysis procedures from qualitative research studies (see, e.g., Goetz & LeCompte, 1984), the research assistant (who had been trained to do the data analysis) and I

repeatedly and recursively read through the transcripts starting with the interviews during the semester. The initial themes were discussed and extended as a result of additional data from end-of-course interviews, and then we selected only the common themes that had emerged and went back to the transcripts to find the central core of issues that seemed to underlie a theme thus creating rough theme summaries. In coding the themes recurrence was an important consideration. These analyses will be presented below.

The Two Common Moves

From the data, two specific kinds of moves seemed most prevalent:

- Σ **agreeing**, where students would start a message expressing broad agreement with the view expressed by a classmate
- Σ **praising**, where student would start with a compliment -- a common strategy found by Davis and Thiede (2000)

In fact, many moves were multifunctional in that upon presenting the theme of "agreeing" to the students, we were often told that these writers were starting with the word "agree" but an added function of the exchange was also to praise rather than simply to agree. Although student views could not be realistically used to validate our analyses, we were aware of the multifunctional nature of the moves as we describe below.

Agreeing and its functions. In responding or talking to the peers, these students were consistently agreeing. The functions of agreement is presented in [Figure 1](#) below. We can see that while students often agreed fully, they also agreed partially with follow-up moves which sometimes added an idea to the peer's idea, or as a prelude to disagreeing, or even as a way to offer alternative interpretations. Each type of function is exemplified with classroom data in [Figure 1](#).

In [Figure 1](#), "agreeing with an additional idea" (1) and "agreeing as a prelude to disagreeing and providing alternative interpretation" (3) were functionally different, although both could be called "personal insights" (Davis & Thiede, 2000, p. 101). In (1) above, the stress was on agreeing -- typically with the use of "and," while in (3) the focus was on differing -- typically signaled by a "however" or a "but."

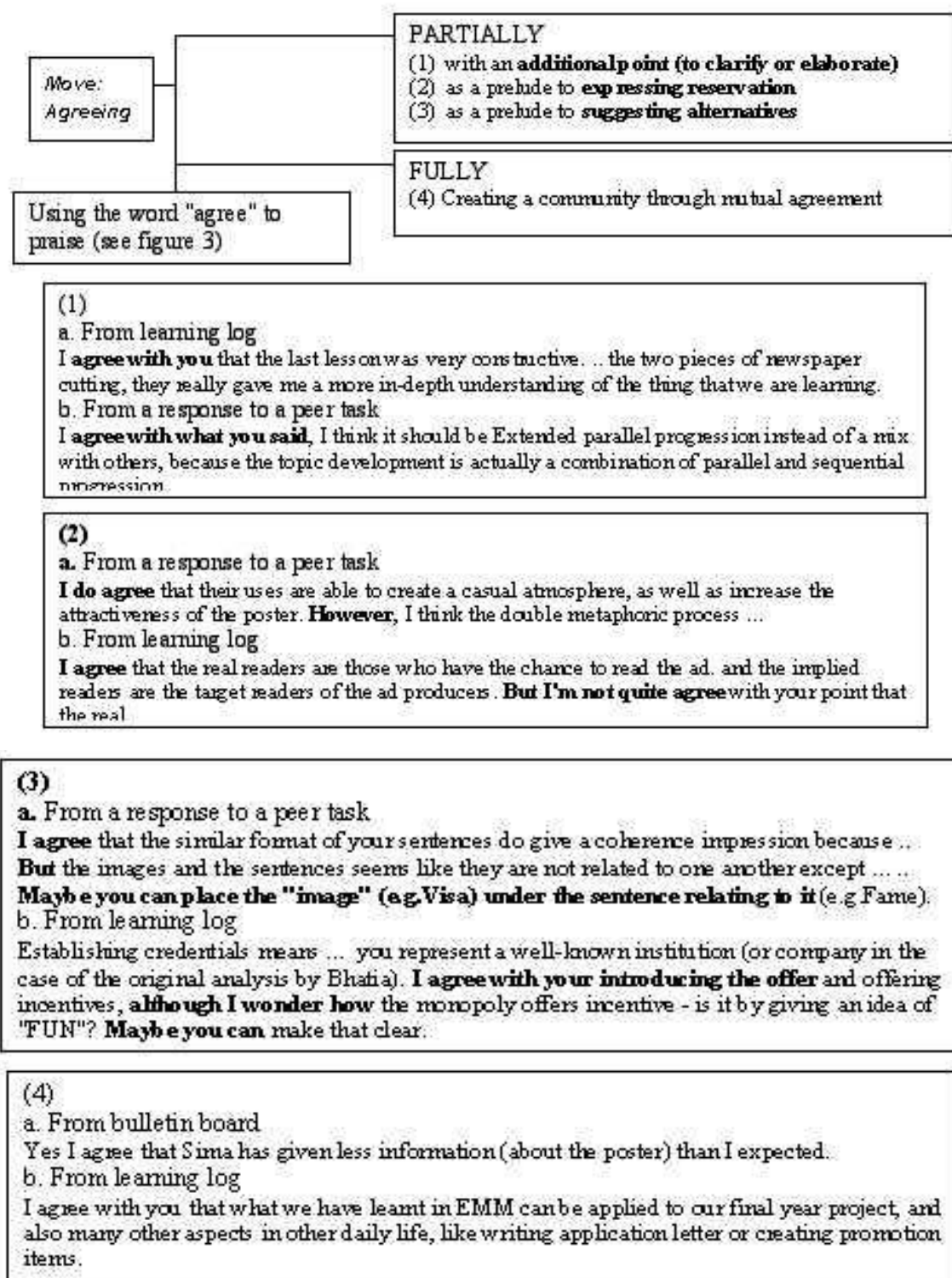


Figure 1. The move of agreeing and the discourse functions

When the students interviewed at the end of the course were shown some of their responses that did not directly serve the "move" of agreeing but had a word like "agree," "right," or "yes," all interviewees said that they would "never" say "I disagree with you" directly as it would be "face threatening" (See Nelson's [1997] work on Chinese learners' attitude to peer response). In fact, one student, C, who had used the word "disagree" twice, said that this was towards the beginning of the course and soon she realized, "I was so stupid -- but I saw Sima's response - sometimes she was disagreeing but saying - I generally agree. Crazy! But I started to follow that" (translated from Cantonese). It is possible that consciously or unconsciously these students were analyzing my discourse and learning from it, just as I was analyzing theirs. But through it all we were all learning new "netiquettes" where one may need to be "more than usually polite" (Davis & Thiede, 2000, p. 112) on the Web, where the genre of feedback requires considerable collaboration (Villamil & De Guerrero, 1996) which seems to have been learned by student C as a result of participation.

It should be noted that the bulletin boards often typically sought agreement and so we also examined the tasks and student pages separately (without the bulletin board texts) in order to ascertain that agreeing was indeed still predominant, built around other specific moves such as explaining, interpreting, offering, thus serving the functions described above.

Praising and its functions. Praising was less common in comparison with agreeing, yet it occurred very regularly. As students were often responding to each other's tasks, it is not surprising that there was much praising. [Figure 2](#) shows the different discourse functions of praising that were found and contextualized examples. In analyzing the data, we detected very obvious differences between full fledged, all out praise -- which was less common, compared with measured praise. The opposite of praise, criticism, was found much less frequently and predominantly in terms of self-criticism or teacher criticism. The interesting aspect of praise as a move was that there was almost no instance of gratuitous praise; it was always offered with an additional point. For assertive praise the follow-up move was either an offer (offering a subjective opinion or contribution) or an explanation/interpretation that provided a kind of scaffolding. Measured praise typically came with a clarifying or an explaining/interpreting move.

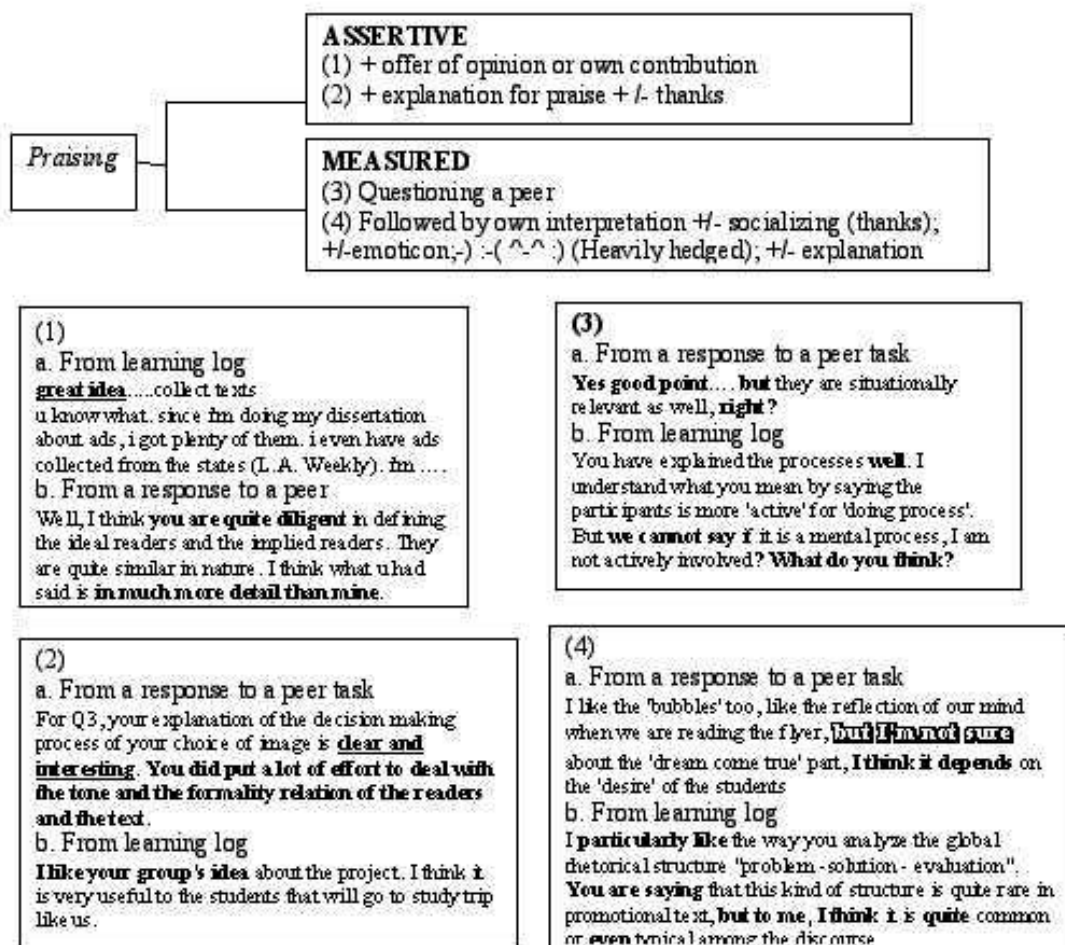


Figure 2. The move of praising and the discourse functions

One important element about praising needs to be mentioned. At the end-of course interviews, every person interviewed within the I&T groups said that they had learned this strategy of praising from their own experience as students, where teachers start with a positive. However, there were other issues that were typical of the Web that led to this kind of "roundabout ways of talking." All the I&T 3 students that were interviewed at the end referred to exchanges in the face-to-face peer-responses in which they had participated previously. One student, in a mid-course interview, discussing the time he had to invest on Web work, said to me, "Don't you understand how different it is to put my thoughts in the I&T Web -- don't you also feel that in the classroom you can say anything -- people will forget it - but not on the Web?"

SUMMARY OF FINDINGS ARISING FROM WEB CLASSROOM DATA ANALYSIS

What were the linguistic and personal dimensions of peer exchanges in the I&T Web classrooms?

From the above data, we can see that students were using language to build a classroom community of appreciative colleagues with similar goals and values. This may explain the predominance of agreement and praise. The exchanges suggest the students were learning to use language as a means of socialization (Gee, 1986) and setting norms of appropriate discursive practices for their own community (Bizzell, 1992). It is also possible that these learners were abiding by their cultural norms where directly challenging, disagreeing, and criticizing would not be seen as appropriate. Although like Spack (1997), I would argue that these students, who were literally and figuratively crossing cultural borders by immersing themselves in English, may well have been drawing on multiple cultural identities beyond the static notion of the "Chinese culture" (1997, p. 768).

The exchanges often clearly showed the process of learning within a community where each participant was helping the others to create a bridge (Vygotsky, 1978). Although many of the exchanges were brought to a closure in the face-to-face classroom in a sense there were no closures to these exchanges.⁸ If we take an example of metafunctions from student K's page, although ultimately I provided some of the answers, the following exchanges show that each participant was able to discuss a way of thinking about an idea expressed -- providing scaffolding through responses that exemplify (C's examples to K's question) and extend (K's question extends V's point of mix-up) the learning of the community. This building of bridges also suggests that much value was placed on peer's ideas by these Chinese students. The interviews seemed to support this interpretation as the themes discussed in the next section will indicate.

Sima to K (3/12/99)
Yes K ... remember that the personal involvement of the reader is to do with interpersonal and the **idea that the image gives - e.g. a static view like a portrait or an active view - is to do with the ideational**. Of course they are **inter-related**.

C to K (3/12/99)
..I think if we **say an image is static, that means the person just standing or sitting there without doing anything**. If the image is active, **that means the person is doing something like drinking wine**.
I don't know whether it is clear to you as the above just for discussion.

K (question)(3/11/99)
Yes we need some **criteria so that we do not mix them up**. What are the criteria to decide where an image gives **is a static view or an active view apart from the background**? And how **will an image be active**?

V to K(3/10/99)
I agree to u all that the metafunctions give us guidelines when analysing a text. I have a better understanding of the metafunctions. But I think that they are very similar. I am afraid **I will mix them up** when analysing a text.

Interviews: Major themes on the learning potential of interactions

Indeed the mid-course interviews and the end-of-course interviews with students indicated a major contradiction in student perceptions. The themes suggested that there was a depth of conflict felt by students in interacting on a public forum, while at the same time there were informed comments about what they had learnt from peers in a way that they could never have in the face-to-face mode. The conflict seemed to be directly related to the accountability that the public and archived nature of the network context essentially imposes on students -- a responsibility that was not so clearly visible in the face-to-face context. All interviewees in the on-going interviews seemed to imply that much of the feeling of heavy workload was arising from the fact that the Web was making each individual much more accountable because all the evidence of participation was there on the Web classroom. The typical extract which follows will show how the perceptions of a peer's abilities were informed by evidence found on the recorded interactions on the Web:

Context: The first face-to-face meeting with each student aimed to identify problems & to get student feedback. This student was arguing that the Web part was taking up so much time that another assessed task, e.g., a dictionary of Semiotic terms, should be built around the Web discussion. To this I said that there was a glossary found on the Web by M -- and this student went on to discuss how clever M was by referring to her ideas rather than her grades

Student: But look at all this - I spend so much time going back and checking how you have explained it and how P... or H... have given examples. So may be we need a - a kind of dictionary -- that can be our assignment?

Teacher: Oh I know what you mean -- I also go back to check if I am right -- but I think M.. has found a glossary of semiotic terms on the Web -- check that out

Student: Yes M... is so clever -- she is quiet but clever.

Teacher: Really? How do you know -- does she get As in everything?

Student: N-ooo but look at some of her ideas on I&T Web -- very brilliant I think!

It was clear to the whole class whether a student had performed adequately and had met the expectations. This meant that a student could look at a peer's work and form an evidence-based impression of the peer's abilities that go beyond the grades as the above exchange suggests. The evidence was on the Web -- teacher response, peer response as well as the ideas that led to these responses -- all contributed towards the forming of impressions. There was indeed support for the finding in the literature that more and better feedback is given, however, these students did not find it easy to give feedback on the Web (Kivella, 1996). In fact they found it harder because the feedback demanded quality. The exchange below, in the second individual consultation with one less active female student from I&T 3, shows the way networks were seen as unique because of the visibility and lack of privacy which is typical of many face-to-face situations.

Context: This was part of the second meetings with each student where the student's performance is discussed to clear confusions and to provide each an idea of my evaluation process. This student was often late in posting her work and she suggested that entering the I&T was costly in terms of her time. The following is part of the exchange in her explanation of why she did not enter I&T Web often

Student: I have never seen all other classmates' work -- and they never saw mine before. Yes I wrote journals and did assignments for other courses -- sometimes we even had peer response -- but this is different -- it is like letting other people see -- not just the teacher -- everyone in the class - my private life -- I mean as a student I have a private life.

Teacher: So are you uncomfortable with that? Would like some pages private?

Student: No no -- I like reading other peoples' work -- I think I know them better -- we all find that we are really learning from each other -- you know H.. is so smart but she said that she understands semiotic codes differently after reading my log.

Teacher: Ya I remember --I learnt a lot too. Then are you saying that you are clear with these concepts but what? You like tasks on the Web or want to stop?

Student: No not stop - but it is difficult - so give us more time. Just think about this when you calculate how much time a task will take -- especially for me -- I am not so smart.

The two inter-related themes that emerged from the interview data were as follows:

Theme 1. Sense of responsibility due to the public visibility of text-based response on the Web

Theme 2. Pure language, stripped of the support of contextual factors

Theme 1: Sense of responsibility due to the public visibility of text-based response

It seemed that the issue of personal accountability, discussed above, was the strongest theme that emerged. These students, even the least active, had written more than 4,000 words on the Web and typically a third of it was in exchanges with teacher and peers not only because bulletin boards required interactions but also because responses to tasks and logs were built into the course. Thus, there was a sense of responsibility arising from this high visibility where everyone knew who was not keeping up with the class. The opportunity to quietly survive in a face-to-face classroom was taken away and this added tremendous pressure in this new mode. The anonymity accorded by sitting unobtrusively in a classroom and quietly slipping out at the end of the lesson was completely eroded instead they felt compelled to say something clever or original. Even the most active felt this pressure but the less active felt it more acutely as the two extracts from mid-course consultation with the two I&T students signify.

Context: This was part of the second meetings where I was praising this I&T 3 student's performance and she was trying to explain how stressful it was.

You always say - great response - but you do not understand the stress - it is going to be there - this response - people will think of me as this horrible person - people who do not know me - because it is on the Web and not at all a communication between two peers - it is like communication with a mass audience.

Context: This was part of the first meetings with one I&T 1 student who was telling me why participating on the I&T Web was difficult for her.

The Web is good to force me to read my note but I think it is very difficult -- I can hardly write - anything without making many mistakes and I cannot find anything to write because I do not understand many ideas till I read what everyone write on the Web -- I can just keep quiet in the class unless the teacher calls my name -- but on the IAT Web I must talk -- it is very hard for me.

It seemed that similar to Warschuer & Lepientre's (1997) participants, who were "caught up in the disciplinary gaze of the institution", I&T students were caught up in the gaze of their classroom community, an experience that was novel as well as disconcerting. Yet we had built in the capability to send anonymous messages on the bulletin board -- but not a single anonymous message was sent. Borrowing from Warschuer & Lepeintre's (1997) argument, is it possible that in my attempt to create a "Freirian community of co-investigators" through the Web classroom, I could not completely avoid a "Foucauldian model of panopticon control"?

Theme 2: Pure language, stripped of the support of contextual factors

The second theme seemed also to relate to the issue of "self" in terms of the very nature of networked communication where discourse patterns may need adjusting to take into account the fact that there was no non-verbal contextual support to fully build a "socially-situated identity" (see Gee, 1999, p. 16). Gee discusses "situated meanings" that we make and interpret by using the cues and clues that create a "situation network." Not only do these clues arise from the language we use but they are also connected inextricably to the other semiotic systems such as gestures and facial expressions. In addition, even the material aspect of place, time, bodies, and objects present within an interaction (see Gee, 1999) provide contextual cues. Since all other clues that help us belong to a "Discourse" (Gee, 1999) were completely absent -- there was only the computer screen and English, their second language at which these students felt inadequate -- to draw a picture of a friendly, polite, and valued member of this "Discourse" community. Thus, the language used in the Web classroom became a rather more demanding element in comparison with peer response

in a face-to-face situation as reported by students (see below) and may have forced students to think of alternative ways of expressing themselves so as to project the "right image" as the interviewees from I&T 3 and I&T 1 indicate.

Context: This was a female I&T 3 student discussing the demand on time that the Web places on her during the first individual consultation.

You know, I have done peer response - but this is so hard - it takes so much time - because I know what I want to say but I have to really think of how to say it. I always write my response in MSword - revise it a few times - and only then post it. In the other peer response - even in written - I can like wink when I give it back - but here language is the only thing I have - and my language is not so good.

Context: A female I & T 1 student responding to the question of whether she enjoyed the Web delivery at the end-of-course interview -- translated from Cantonese.

I was always afraid that maybe I will say something wrong or incorrect. But if I am speaking I can see the face and know if I am wrong -- but on the Web I cannot see if they are nodding agreement.⁹

One might argue that this is the nature of written discourse where certain contextual clues are missing. However, there are usually shared conventions within communities of practice, conventions that students learn as they develop their academic literacies through gradual induction (Lave & Wenger, 1991). Unfortunately in the I&T Web classrooms, we were creating these conventions and thus the stress was natural for second language learners who may not have a large repertoire to build shared practices.

DISCUSSION

Do the previously mentioned dimensions indicate that the network-based mode of delivery required students to learn language and content in new ways?

There are a number of features that can be seen as new ways of learning. Firstly, the kinds of discussions that were going on about the content showed an applied, practical, and co-constructed development of knowledge. Hand in hand with this development was an emerging community of practice, the community of I&T Web where you had to agree to disagree, had to praise to criticize. None of these conventions are new -- they are all part of the feedback genre -- but they were being made part of the I&T community conventions by the users by resorting to specific kinds of moves.

And there was reflection. Every student reported "lurking" on the Web to read the responses, especially when dealing with difficult tasks such as the last log where they had to delineate the connection between ideas. Indeed, the spoken-like discourse of the written interactions meant that concepts were being discussed with applied examples, especially in the logs and the bulletin board, thus creating a richness arising from the fact that they had more time to think (Sullivan & Pratt, 1996), apply ideas to real life, and then demonstrate this ability on the I&T Web. Unfortunately, availability of time to think seemed to have meant a greater amount of stress as the interviews indicated.

Did students view these exchanges as new ways of learning? In many ways they did. Web-based exchanges were, according to many, a new kind of peer response which was highly valued because it was an ongoing dialogue sustained over 14 weeks. Therefore, it became harder, due to the public archived nature of the Web where your absence would be noted and your lack of commitment would become clear if you do not respond to a peer or teacher. Unlike Curtis and Roskham's (1999, p. 35) Hong Kong tertiary students, these participants did not seem to have become used to these interaction over the semester. From the interviews during and after course for I&T, it was evident that such textual interactions posed anxiety of a different kind not only in terms of how to say something clever and critical yet reasonable, but also in terms of the structuring and choosing of language options to say whatever they wanted to say. Unlike Kivella's (1996) students, these students were getting more stressed over time. Availability of time, therefore, was a double-edged sword in this case as the extra time came with the price of visible accountability -- a responsibility for learning that they had not encountered in the same way, according to every student.

This discussion would be incomplete without examining the nature of equal opportunities on the Web, a novel feature of Web based classes mentioned by many contemporary writers (Lamy and Goodfellow, 1999; Ortega, 1997; Warschauer, 1998). Like all other networked classrooms, these classes also provided an opportunity for all to participate -- indeed these classes made participation a compulsory part of the course. In the I&T3 class, some of the more active (since these were small classes, it was easy to identify the more active, who answer more readily and contribute and question more often within the face-to-face setting) students in class generally interacted more actively on the Web. Indeed this "active" group was making most of the moves that we labeled "providing scaffolding" -- a move which was defined as "assisting a peer" in line with Villamil and De Guerrero (1996). Yet the interaction data showed that "natural tendency to be active" may have been only one factor. There was a "sometimes active" group of students, who became extremely active for one topic. Two of them were interviewed at the end and they explained personal interest accounted for active participation. One male student of I&T 3, for example, found "denotation and connotation" fascinating and he posted five messages in one week. Yet there were weeks when he was missing completely, as he explained at the end of course interview, "Some of the things were very boring -- they were just talking -- I did not find these topics like ideology was done in-depth -- so I kept quiet -- I have a life -- I have other things to do" (translated from

Cantonese). A small group of participants were consistent in their lukewarm enthusiasm throughout the course but their interview data did not provide any indication why this was so. So, we can say that the democratization principle did not work in significant ways in this Web class and was not seen by students as a great opportunity.

Finally, the strongest belief in the data was that this mode was opening up an opportunity to learn from others in a somewhat more passive way than face-to-face group discussions, yet in some ways in a more powerful way because of the ability to go back. Web response was passive because in a group discussion one has to think very quickly and concentrate so that one grasps another group member's contribution while on the Web there is private time to think.

Though strictly beyond the scope of this paper, the interviews indicated that the new ways of learning also emerged from the role the teacher was playing. These students were often teaching each other while the teacher was saying that she did not have the answers as this extract demonstrates:

p... to a... (3/3/99)

hi, about the 'codes' problems you have--maybe you can think about 'constraints'.. like for social codes--

Sima to A... (3/2/99)

You know A.. - just because I am the teacher - I do NOT have ALL the answers - but I have just read up a little on codes and from a common sense perspective I would say the interpreter's schemata helps in

a... (3/2/99)

Hi Sima,

Is there any relationship between schemata and codes? How are they related?

All students reported a sense of unease initially at responses where the teacher sounded unsure. In the first consultation almost 9 of the 12 I&T 1 students had asked for correct answers, yet in the end all interviewees reported that one aspect they found fascinating was that the teacher praised two very different analyses that they could compare and read on the Web.

CONCLUSION

Although the perspectives described originate from one institution and its specific institutional context, the emerging issues may have global implications. The common moves described above and the student views indicate how students had used the technology to extend and enrich their learning experience within the classroom context. Indeed every pedagogic endeavour has its problems and pitfalls as, of course, it has potential and possibilities. For I&T classrooms, the potentials included rich interactions supported by two

complementary modes (face-to-face and Web-based) and a keen sense of responsibility, while the pitfall was in the kind of workload-related stress whole experience had created. Indeed the workload was felt to be overwhelming by the teacher as well. Yet for the teacher, there was tremendous satisfaction when L2 students, who had never heard the word "genre" or "semiotic code," were questioning how the stages in a genre were arrived at and explaining semiotic terms to each other -- using only English. It was also fascinating to go back to the classroom data and see the social processes within which students co-constructed and contextualised their Web-based classroom communities and as a teacher reflect upon the quality of my own contribution in this socialising process.

Ultimately, the success of an enterprise, I believe, is in the perceptions of the participants. Perceptions are socially and situationally constructed and thus require cautious interpretation. However, these participants at no point gave the partially network-based classrooms a complete seal of approval. The positive comments of new ways of learning and new ways of thinking went hand in hand with the horror of the information overload and the cognitive demands. As a teacher, I have thus realized that this is indeed just the beginning of our own learning. In our learning process our students may well be our best teachers -- helping us see what technology has to offer to education in general and language education in particular.

APPENDIX A: Extract of Outline from Three Courses

ESP: Image and Text Tentative Schedule (web-based work in the shaded areas)

Week & date	General input (2 hrs)	Week & date	TASKS: Web-based work (1 hr)	Homework + Learning log
Wk 1	Introduction to the course; Orientation: WEB-based work; What is a text?	Wk 1	Creating a text and choosing an image	Look at the task you have done on the web and respond to two classmates. See my response -- as an example -- do not copy
Wk 2	The nature of written communication. Spoken and written discourse	Wk 2	Discussion of the nature of written communication in an ad	Answer the two points for thought - see notes. Respond to one other person's thoughts.

Image and Text 3: Outline for February (tentative): Web-based tasks shaded

Week	Plan (1 hr)	Week	Plan (2hr)	Homework + Learning log ¹
Wk 1	Introduction to the course; What is a text? Text and discourse; Critical Discourse Analysis	Wk 1	An introduction to Social Semiotics; Orientation for web-based work;	Read the chapter and comment on the aspects that you find difficult to understand in your student page.
Wk 2	Task: An initial semiotic analysis of an advertisement	Wk 2	The semiotics of visual signs & the multimodal text	Respond to two classmates' journal. Go back to your semiotic analysis -- in what sense are "motivated conjunctions" affecting our reading?

APPENDIX B: A Frontpage of a Flyer and Extracts of Analysis and Response

* will attend a local high school where you make friends for life.

Girls, say cheese--A snap shot of Patsy and her classmates during recess.

To ask for further information and application form, You
can WRITE to us to
Hong Kong AFS
8/F Sze Fung International Centre,
182 Queen's Road East,
Wanchai,
Hong Kong

can PHONE or FAX us at
28020383 / 28024181
(from 9-6 Mon-Fri, 9-1 on Sat. close on Sun.)

can E-MAIL us to
info-hongkong@afs.org

can SEE us on
www.afs.org

AFS is an ADVENTURE OF A LIFETIME that YOU CAN'T MISS!

AFS
A Year Exchange Program

Coherence can be established by looking at the 'theme-rheme' relationship between and text segment and another text segment. The structure of the flyer:

What is AFS?

(Theme=AFS)

What is Hong Kong AFS?

(Theme=Hong Kong AFS)

How can You become an AFSer?

(Theme=You)

What will You (AFSer) do and

gain in the program?

(Theme=You)

How You can get more information and apply for the program? (Theme=You)

In my flyer, I try to stick to the same theme most of the time under each sub-heading.

For example, when I talk about the background of AFS, I stick to use AFS as the theme throughout the

APPENDIX C: An Extract from a Student Portfolio, Image and Text 1

Background:

This one was a project-related task. It was done in week 11. In this week, my group members and I discussed about the text and the layout of our flyer during the lesson. Also we shared ideas with another group about our projects.

Rationale:

The main reason that I chose this task because it is the most satisfactory task among all of my work. It do show learning since I got a high grade in this task.

I have written a stage analysis for our flyer. Before I have come across some examples. Therefore I didn't find it very difficult when doing the stage analysis.

The task can show that I have a clear understanding the idea of stages in a genre analysis. Writing stages can see whether the text is connected in a logical way or not. After doing the analysis, I know I should make each paragraph connected when writing a text. Surely you know this before?

In the assignment, I have divided the text into five parts. Each part has its distinct subtitle. Also this task can prove that there is no model answer in Image and Text. Eve's stage analysis and mine are different but both of us are acceptable.

NOTES

[return1](#)This paper reports research funded by Grant (A-PB83) from the Department of English, Hong Kong Polytechnic University.

[return2](#)For some it entails helping learners discover grammatical rules for themselves by focusing on aspects of the target structure (Yip, 1994, p. 124).

[return3](#)However, in recent years this idea has been challenged especially by researchers looking at gender differences. See Trias, V. J. (1997). *Democracy or Difference: A Literature Review of Gender Differences in Online Communication*. Temple University, Philadelphia.

[return4](#)In order to make the Web work part of the assessment, all students were asked to hand in a learning portfolio consisting of selecting three or four tasks from all the work done on the Web to demonstrate what was learnt in the course.

[return5](#)Typically for BACEL the classes contain more females -- in this batch there were only 2 males and 22 females.

[return6](#)The majority opted for more practical options like Business English and English language teaching.

[return7](#)We found 11 moves namely, agreeing, praising, providing scaffolding, explaining/interpreting, clarifying, revising interpretation, offering, demanding, criticizing, requesting and socializing.

[return8](#)As we studied English for the Mass Media last semester, the questions of interpersonal elements in an image in the newspaper or nature of intended readers were once again discussed.

[return9](#)There were plenty of linguistic errors and some typos. At the second consultation errors were discussed but I did not correct errors on the Web classroom -- though I often used their wrong constructions in correct form.

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