

Students' Perceptions of An Online Discussion Forum

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Abstract

Student attitudes toward the use of computer technology, such as an online discussion tool to extend classroom interaction, have been previously explored by research in Computer Assisted Language Learning (CALL). This study examines data from a survey and from actual discussion postings by graduate students in a Computer Assisted Language Learning (CALL) course in a teacher-training program. The analysis demonstrates that the students' self-reported perceptions of their learning sometimes concur with, but also vary from, the evidence shown in their own online discussion postings. The students' postings show, for example, that they were better critical thinkers than they believed themselves to be.

Introduction

Computer technology has made interactive discussions possible beyond classroom walls. In traditional graduate courses, students and teachers explore their subject matter through lectures, activities, and face-to-face discussions. When integrated into these courses, online course management systems provide other forums in which class members express their opinions and explore course content. This study focuses on attitudes toward the use of such a forum.

Attitudes Toward Technology in Educational Environments

Successful integration of technology in educational environments depends greatly on students' attitudes towards it. According to Palaiogeorgiou, Siozos, Konstantakis and Tsoukalas (2005), "Attitude is defined as a positive or negative sentiment, or mental state, that is learned and organized through experience and that exercises a discrete influence on the affective and cognitive responses of an individual toward some other individual, object or event" (p. 331). They point out that attitudes about computers evolve continuously as users become familiar with technologies, develop their skills, and increase their knowledge of computer applications. Attitude may be the most important variable which determines students' learning. If they have a favorable attitude they will learn, and if they have an unfavorable attitude, they will not learn much.

Vandewaetere and Desmet (2009, p. 371) gathered research on the perceptions students

have toward the increasing use of computer technology in their courses of study. They noted that it is important to gauge student attitudes toward CALL in order to make teaching and learning with modern technology more effective, and that now, after two decades of research, "learners' overall perceptions of CALL are positive if they are provided with stable technologies and receive good support" (p. 349).

It is important to keep in mind that learner perceptions need to be studied and evaluated as the use of technology increases. In a study about learners' attitudes towards multimedia instruction in Spain, Garcia (2001) suggested, "If the utilization of multimedia teaching/learning environments is to be maximized, attitudes toward these learning settings must be continuously monitored" (p. 94). He defined eight multimedia-based dimensions by which learners' attitudes could be examined: interaction with technology (INTERACT), learner control over the instructional process (LEARNCR), students' degree of involvement in the multi-media activity (INVOLVE), views on individualized instruction (INDIVID), students' perceptions toward self-paced instruction (SELPAC), user-friendliness of the technology (IVDANX), and general opinions toward the experience (GNRALOP) (p. 95). In this paper, I examine learners' attitude toward a discussion forum using a selective combination of Vandewaetere and Desmet's (2009) and Garcia's frameworks as together they cover a comprehensive range of factors in which stu-



dents express their ways of using a technology tool to expand their classroom experience.

In the online forum under study, the students and teacher expressed reactions, opinions and questions regarding the content of their course. The online forum extended face-to-face interaction and was made available for exclusive use of class members for the period of one semester. In this paper, I am interested in examining students' attitudes about this online forum by looking at both their self-reported perception on a survey and their actual postings in the forum. My research question is: How accurately do students perceive their participation in the discussion forum and its benefits to themselves as teachers of English language learning?

Context of the Study

The course under study was an elective in a graduate program in Teaching English as a Second Language (TESL) in the Pacific that was offered during the fall semester of 2009. It was a bi-level (graduate and undergraduate) course with a focus on finding and using appropriate resources for language instructors and their specific learners. Participants in the course were to explore the effective use of computers and video in language teaching, evaluate commercially available (and freely accessible) computer programs, create a language learning video, and develop original or authentic materials for language learning.

During the first two hours of the weekly class meetings, the students were introduced to theoretical concepts through readings, lectures, and PowerPoint presentations. The final hour of each class was devoted to work in a computer lab where students presented 'hands-on' demonstrations of useful computer tools and sites, such as Tokbox for online chatting, Blogger for creating personal blog sites, LexTutor for access to concordances, Rubistar for designing rubrics, and MovieMaker for editing videos. In addition, students were required to do weekly searches for resources on the internet and build a wiki to be published online on a Google site. The class employed discussion forums in a free course management system,

Edu2.0, (<http://www.edu20.org>). The forums were used for two purposes: posting (a) answers to application activities (assigned as homework) and (b) reactions to readings on topics covered in class such as 'inquiry and content learning' or 'using film drama as an authentic resource'. In the Application Forum, students researched websites and designed teaching activities based on listening, speaking, reading, and writing skills. Students took turns creating teaching activities and critiquing them. In the Reading Reaction Forum, students commented on assigned readings and handouts, agreed or disagreed with the authors and sometimes asked for or offered clarification. Participation on the online forum accounted for 10% of the total grade for graduate students and 20% for undergraduate students.

The Edu2.0 discussion forum was designed to encourage thoughtful dialogue between students and the instructor, to bridge different cultures, and to promote mutual understanding. It functioned as a learning extension, allowing a one-to-one discussion of course issues that might not have been possible within the limited time constraints of the class and lab sessions. The weekly forums were also the data for this study.

Methodology

Participants

In this paper I considered the attitude of 17 students,¹ thirteen (72%) of whom were female and four (28%) were male. Their ages ranged from 18 to above 50. They were both graduate and undergraduate students whose goal was to teach English as a Second Language. The class was a mixture of native English speakers from the US and Canada (10 students, or 59%) and non-native speakers (7 students, or 41%) from Taiwan, France, Japan, and Vietnam. This study considers online postings by all 17 students.

Survey data were gathered anonymously from 15 volunteered class members, three of whom classified themselves as 'beginners' on the computer, eight were 'average' computer users, and one claimed to be 'advanced'. Five students described themselves as 'introverts',

three said they were ‘extroverts’, and four stated that they were a combination of both personal characteristics. In the qualitative data, students were labeled ‘A’ through ‘Q’, and the teacher was referred to as ‘T’.

Instrument

My survey was based on the method used by Tagahashi (2009), who conducted a study on users’ perceptions of language lessons broadcast by a Japanese radio station. I also relied on a model developed by Vandewaeter and Desmet (2009) based on a theory of attitude that features three components: cognitive, affective, and behavioral. I created 12 questions that students from the CALL class could answer on a 5-point Likert scale: strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. They were also prompted to add comments (see Appendix).

The 12 items of the survey were:

1. I participate in Edu2.0 online discussion because it is a requirement for this course.
2. I read the postings of others and respond to them.
3. I feel confident to express myself freely online.
4. I prefer face-to-face discussion to online discussion.
5. I feel motivated to interact and share my opinions in online discussion.
6. I like seeing pictures of other participants.
7. I have learned a lot about my classmates from our online discussions.
8. Which features of online discussion do you like the most? Which features of online discussion do you like the least?
9. I have used critical thinking skills in my online discussions.
10. I plan to incorporate online discussion in my future work/teaching.
11. My knowledge of course content has increased through online discussions.

12. I find online discussions to be enjoyable, productive, or not interesting, boring.

Additional blanks were provided in the anticipation that students would add comments about their experience using CALL. This feature of the survey was incorporated due to the suggestion of researchers Abbot and Faris (2000), who said, “We recommend supplementing the Likert response scale of these instruments with several open-ended prompts to qualitatively examine pre-service teachers’ explanations of course-related technology experiences” (p. 158).

Data Collection

The survey was given to the students in weeks 7 and 8 of the 15-week course. Fifteen anonymous surveys were completed and returned to the researcher and provided the quantitative data for this paper. Two items that may have caused confusion to the participants were those in which the Likert scale did not obviously apply. These were Item 8, “Which features of online discussion do you like the most? Which features of online discussion do you like the least?” and Item 12, “I find online discussions to be enjoyable, productive, not interesting, boring.” Participants tended to ignore these two items, perhaps because they deviated from the Likert scale pattern. For this reason, these items were excluded from my analysis.

In order to make a comparison between student answers on the survey (quantitative data) and their comments in the forum (qualitative data), I read their online postings as text printouts from the weekly forums commencing with Week 1 and ending with Week 13. Since Week 12 was a holiday, the data covered only 12 weeks. The student posted a total of 216 messages, using 29,025 words, in these 12 weeks. Week 6 showed the largest number of postings for the entire semester, with 4,698 words posted. This was well above the average of 2,419 words posted per week in the 12 weeks. In the data excerpts cited in this paper, the students’ original wording will be retained without any editing.

Analytical Procedure

In analyzing the survey results, I generally combined “Agree” and “Strongly Agree” into one category and “Disagree” and “Strongly Disagree” into another in order to simplify the results into either positive or negative responses.² Details on the level of agreement and disagreement will only be reported when it is relevant to the analysis. Weekly postings were counted and examined qualitatively along the lines suggested by Garcia’s (2001) and Vandewaeter and Desmet’s (2009) frameworks in order to compare them with the survey results.

Findings

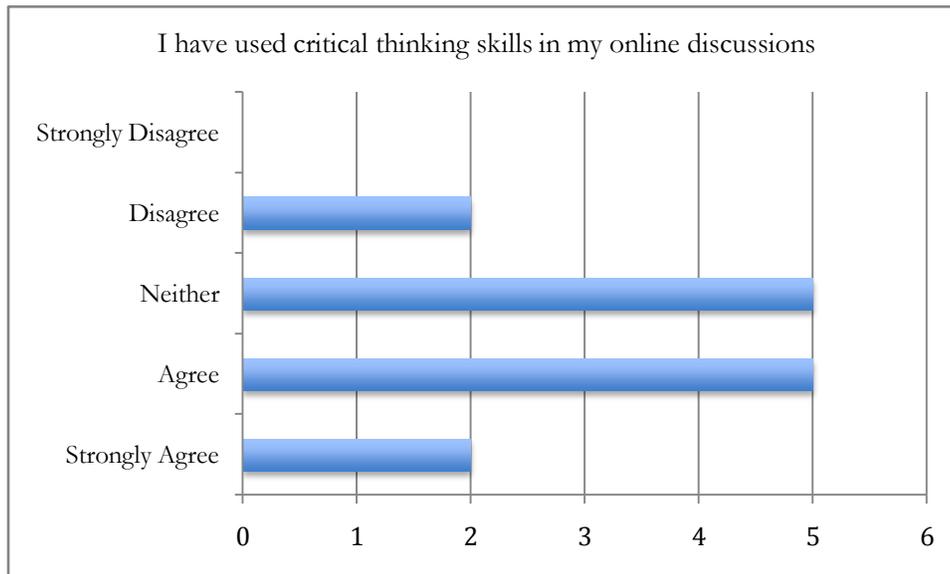
In this section I will report on the survey results and my analysis of the students’ actual postings along the three major components of attitude outlined by Vandewaeter & Desmet (2009). The cognitive aspect involves beliefs, the affective component deals with feelings,

and the behavioral category leads to adoption of particular learning behaviors (p. 351).

Cognitive component

The cognitive component of learners’ attitude “involves beliefs or perceptions about the objects or situations related to the attitude” (Vandewaeter & Desmet, 2009, p. 351). An item in the survey touched on the cognitive component by asking about critical thinking skills, which, according to Bloom’s taxonomy of cognitive domains (as cited by Huitt, 2009), involve the ability to apply, synthesize, and evaluate information. Item 9 addresses the cognitive component: “I have used critical thinking skills in my online discussions” (Figure 1). Less than half of the students (47%) who responded to the survey perceived that they used critical thinking skills in the online discussion.

Figure 1. “I have used critical thinking skills in my online discussions.” (Item 9)



Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

Indeed, one student noticed she had difficulty developing specific cognitive skills:

- (1) One of the things I have had so much trouble since I came HPU is critical think-

ing. That part of my brain had never activated. (Week 5, Student O)

On the other hand, evidence taken from the online postings revealed that 13 out of 17 students (76%) who posted were questioning

course content and asking critical questions about course issues. In the postings, I noted evidence of critical thinking according to Bloom's taxonomy. I identified instances in which students evaluated the content of the reading, related the content to their own experience, voiced their opinions, and so on. In one case, an informative conversation 'thread' developed between participants about collaboration among students working around the computer:

- (2) Would two kids sitting around one computer screen qualify [as collaborative work]? My third graders like sharing, but my second graders get mad if someone else is looking at their screen! (Week 4, student B)
- (3) I think two kids could sitting around one computer screen and discussing their answer qualify. However, the problem here is that the computer in school are all desktop (As far as I know, desktop has only one gate for head phone, but laptop has two. (Week 4, Student D)
- (4) It is funny you mention the difference between second and third graders . . . children ages 6-7 have not quite developed a complete understanding of sharing things. The third graders might be 8-9 years old so they work a little bit better with each other. (Week 4, Student Q)

Although these examples show only a basic level of critical thinking, they nonetheless show that students are relating their opinions to the material rather than simply repeating the course content.

Other comments probe beyond the surface of factual information found in the course materials, for example:

- (5) To me, it is still worth knowing and pointing out when it may be appropriate to use CALL vs. traditional methods in language a class. (Week 2, Student Q)
- (6) How is it that other teachers here and abroad are not aware of what a difference it makes for learner to have an authentic audience? (Week 5, Student G)

- (7) As a teacher or researcher, I realized it is very important to look at many other aspects of CALL such as language impact or linguistic features. (Week 2, Student O)
- (8) Teachers should consider when and how on-line communication will be used to motivate student most. (Week 2, Student A)
- (9) I was surprised to learn that based on their research, e-mail communication is closer to writing than it is to speaking. (Week 2, Student N)
- (10) One thing I think is important to stress is that the computer cannot and should not act as a substitute teacher. (Week 4, Student K)

These examples provide evidence that students were thinking critically about course content (to some extent). The data also showed that participants used the forum to discuss issues related to their teaching, such as the following postings:

- (11) I am very interested in the [dictation] software because it is very useful for not only my students but also for me to practice speaking English. (Week 4, Student E)
- (12) I divide students into two groups, one representing the "for" and one representing "against". This is especially effective for adults because they sometimes are forced to think critically. . . (Week 5, Student K)

Similarly, a participant also related language skills examined in the course to personal growth:

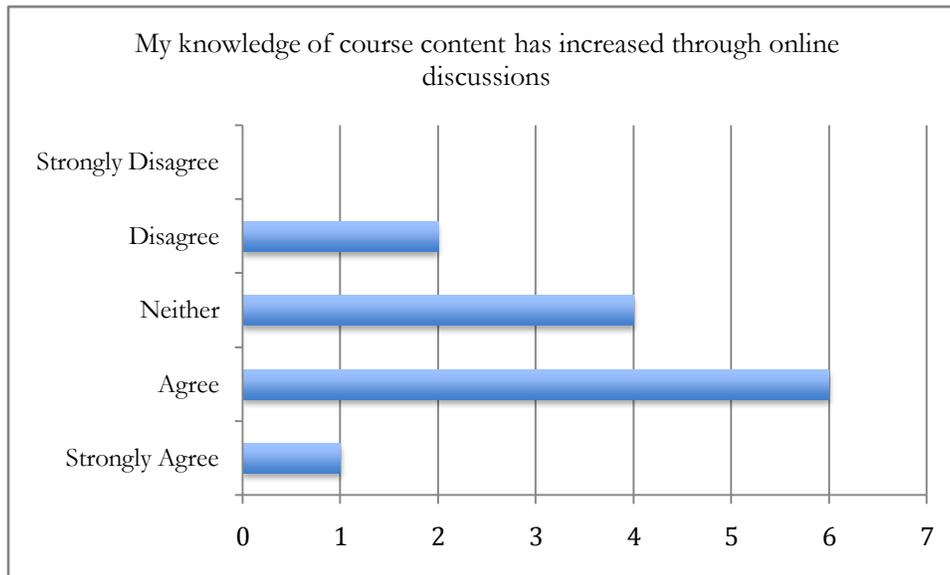
- (13) Are you clear about what to focus on when developing oral communication skills? This is a question that I find repeating to myself as I progress, not only through this CALL course, but also as a student presently learning a second language. (Week 4, Student H)

In short, these student comments seemed to come from their perceptions of themselves as emerging educators who could examine the

course material and relate it to themselves. They exhibited their critical thinking by interpreting information based on prior learning, integrating ideas into their plans for future teaching, and questioning standard practices.

A second question on the survey that examines the cognitive aspect of attitude is Item 11. Only 7 out of 15 (47%) participants agreed that their knowledge of course content (Figure 2) had increased through online discussions.

Figure 2. “My knowledge of course content has increased through online discussions.” (Item 11)



Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

My qualitative examination of the students’ postings, however, showed a slightly different picture. I found postings from 11 out of the 17 students (65%) which seem to indicate that they were gaining new knowledge from their interactions in the forum. An example can be found in a posting by Student C, who was grateful for the input of other classmates:

(14) When I read two chapters in Egbert’s textbook before the class, I did not understand what the author wanted to say . . .but after the class discussion, I got it because [student] and [student] helped me to understand. Thank you. (Week 3, Student C)

After several weeks, participants were using the discussion forum quite vigorously, gaining more knowledge about the course content. All of the 17 class members posted comments, questions, and replies. The topics were “Developing Reading and Listening Skills” from

Chapter 3 of the text, and “Communication and Collaboration” from Chapter 4, of Egbert’s *CALL Essentials: Principles and Practice in CALL Classrooms* (2005).

Students began asking technical questions, such as:

(15) A: Can you tell me how to use Microsoft PowerPoint to record audio segments?

T: You can narrate your presentation by clicking the Slide Show button, then select. . . (Week 4)

In answer to student A, the instructor (T) gave a full explanation to the question, and it was further explored in a ‘hands-on’ presentation in the computer lab. This exchange gave evidence of valuable one-to-one extension of classroom interaction between the student and the course instructor.

In many cases, students were using their cognitive abilities to discuss and solve prob-

lems related to their coursework and to the technology. Apart from topics that related strictly to their teaching, commentators were also expressing viewpoints and feelings about their interactions in the forum. The next section reports on the affective component of the students' attitude, as seen on the survey and in their postings.

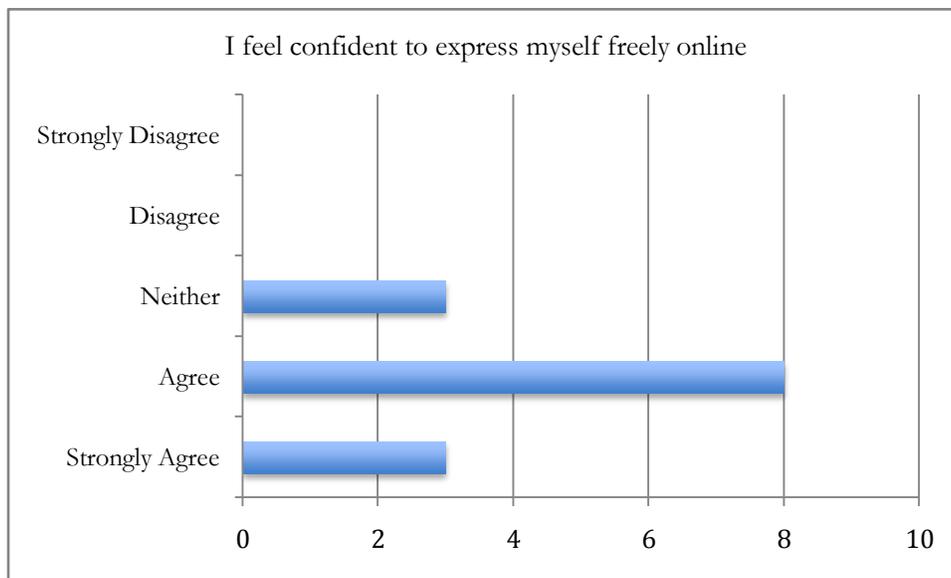
Affective component

The affective component of attitude “expresses the feelings that arise about the cognitive element and the appraisal [good or bad] of these feelings” (Vandewaeter & Desmet, 2006, p. 351). Several items in the survey touched upon the students' emotional attitudes, including their confidence in expressing themselves freely,

their preference about their classmates' photo icons in the postings, how much they learned about their classmates, their involvement in the online discussions, and finally, their overall attitude about online discussion vs. face-to-face discussion. These aspects will be described below.

The first affective aspect of the survey was Item 3, “I feel confident to express myself freely online.” Out of the 15 responses to this question, 11 students (73%) gave a high positive response, which indicated that many of the students perceived the forum to have encouraged them to communicate their thoughts openly to their instructor and others in the class.

Figure 3. “I feel confident to express myself freely online.” (Item 3)



Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

The students gave evidence that they felt free to express their feelings openly, even those that were less than positive. With respect to Garcia's (2001, p. 95) notion of anxiety as part of attitude (IVDANX), a student exclaimed:

(16) What's really frustrating and maddening is that no one is beside me at the moment to

show me what's wrong. (Week 2, Student P)

By Week 8, students had taken control of the discussion forum by initiating topics of their own interest. The given topic for discussion in Week 8 was evaluation of videos that students had researched. One student asked about the relevance of using subtitles for lan-

guage learners. This idea was explored by others and developed into a ‘thread’ which involved six students, two of whom had posted infrequently. The forum was functioning well as a viable communication space.

(17) B: What are everyone’s thoughts about subtitles? (Week 8)

J: The book (Sherman, 2008, p. 16) also stated that if the audio is in the target language and the subtitles are in the target language, it is much better geared toward facilitating learning. (Week 8)

L: When I watch TV here in Hawai’i, sometimes I activate subtitles so I can understand more. (Week 8)

G: I never thought of the option of using the subtitles in the target language for comprehensions support! (Week 8)

M: I remember watching a video about Christian missionaries in Hawaii. The video was very old . . . (subtitles were very necessary). (Week 8)

E: I find watching films in English so difficult to understand without subtitles. (Week 9)

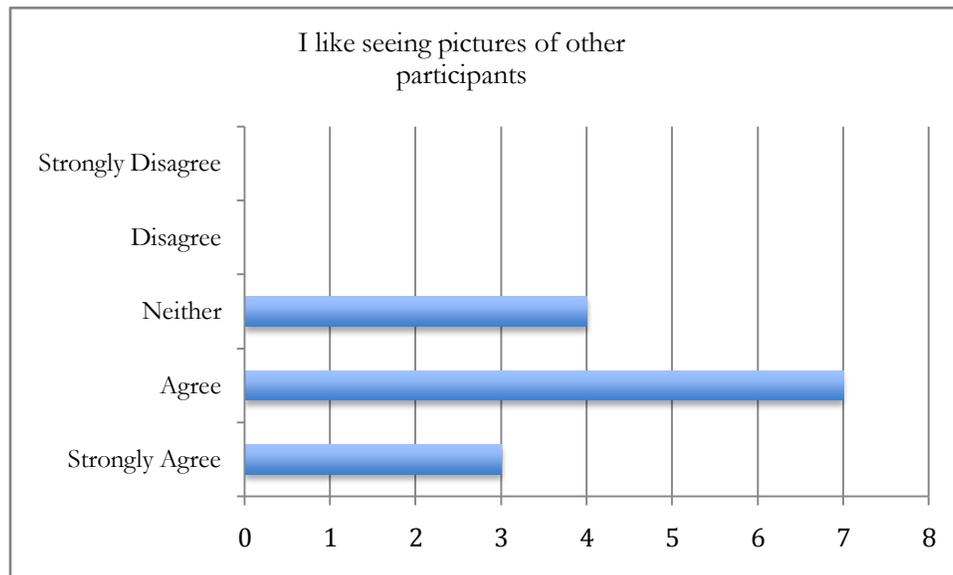
During the last weeks of the course, after writing and rehearsing their own video skits, students were posting messages that were quite candid about their negative feelings. Two of the postings expressed personal feelings about viewing oneself on video:

(18) I get the benefits of this exercise, but I for one do not enjoy being in front of a camera. (Week 11, Student B)

(19) Many students also come from cultures where this is not OK to produce something less than perfect in front of other, or to become actresses/actors. (Week 11, Student G)

In addition to using text, the students were able to see photos of each other. Positive agreement responses (60%) to Item 6 “I like seeing pictures of other participants” indicates that students appreciated the ability to see one another’s pictures (Figure 4).

Figure 4. “I like seeing pictures of other participants.” (Item 6)



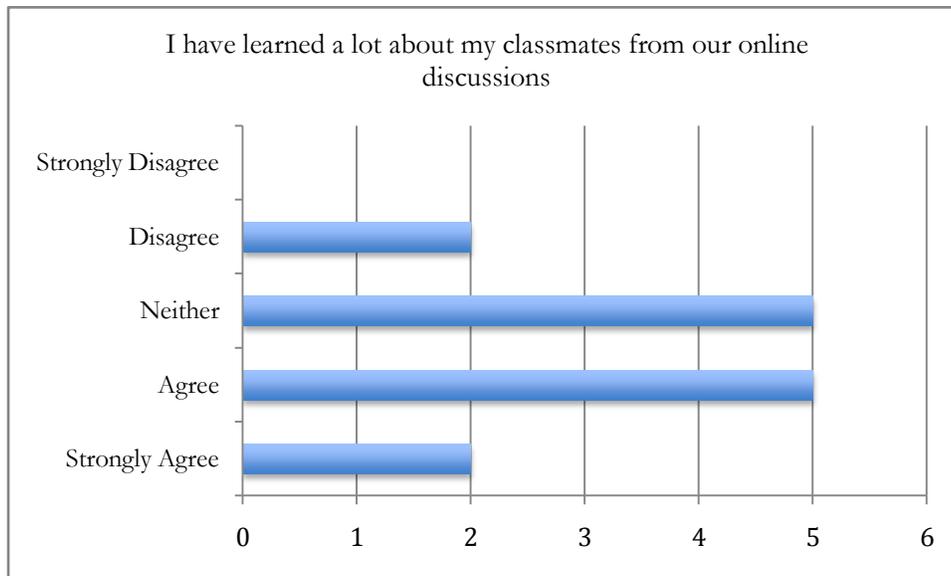
Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

Comments on the survey were, “I like to feel like I’m talking to them” and “helps me remember names”, and also, “I like the friendly interface of Edu.20 . . .” The students’ preference to see their classmates’ photo icons online may indicate their desire to connect to one another as persons and by extension, the im-

portance they placed on the social aspect of the online discussions.³

Item 7 on the survey (“I have learned a lot about my classmates from our online discussions”) was responded to with 47% agreement, 33% neutral and 13% disagreement (Figure 5).

Figure 5. “I have learned a lot about my classmates from our online discussions.” (Item 7)



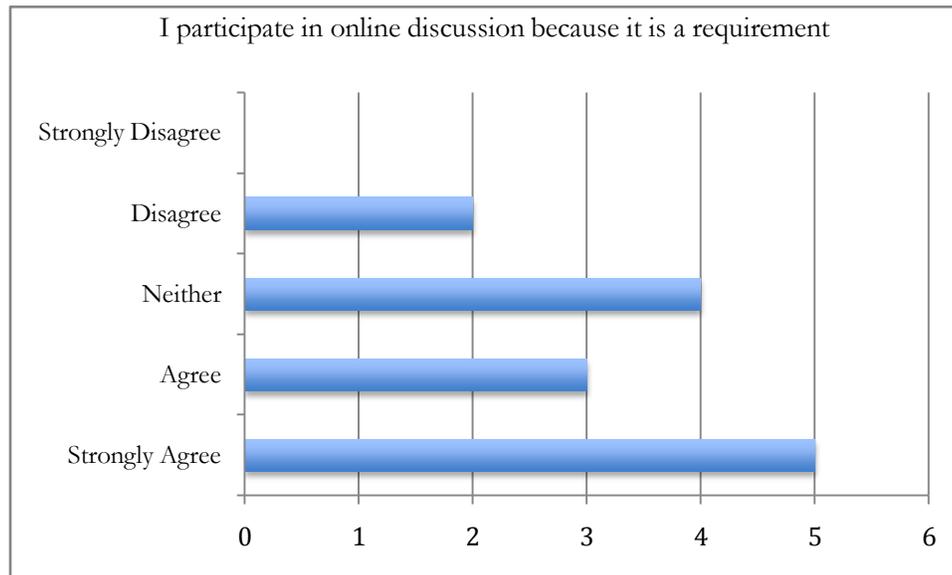
Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

These results support the idea that the students seemed to find the forum to be a friendly, online space. Many of the students also indicated that they learned more about their classmates through the online discussions. This seems to suggest that almost half of the students perceived that the online forum allowed

them to become better acquainted with their classmates through the discussions.

Regarding the students’ attitude about participation, interestingly, a little more than half of the students (53%) agreed that they posted comments because the forum discussion was a weekly class requirement (Figure 6).

Figure 6: “I participate in online discussion because it is a requirement.” (Item 1)



Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

This survey item considered the students’ level of involvement in the online forum (INVOLVE) (Garcia, 2001, p. 95), and their possible motivation (or lack thereof) to participate.

A candidly worded posting from Student D admitted:

(20) I considered online discussion as an obliged task. (Week 2, Student D)

Another student however, appeared ambivalent about online discussions in language teaching. The student acknowledged the time demand of online posting while also recognizing the value of online discussions:

(21) I sympathize with [student] about the time it takes to participate and read online discussions (I am not a big fan either), I do feel they add a valuable component to ESL/EFL language teaching. (Week 2 Student N)

The students’ participation could be related to their language background as native or non-native speakers of English. In the 12-week period covered by the study, the seven non-native speakers posted 11,300 words at an average of 1,614 words per student compared to the ten

native English speakers who posted a total of 17,725 words at an average of 1,772 per student. On average, a native English speaking student posted 158 words more than a non-native English speaking student. This difference between the native speakers and the non-native speakers seems to be minor compared to the face-to-face meetings of this class, in which native English speaking students seemed to be clearly more vocal than non-native speakers, a pattern not uncommon in mixed classrooms.

With respect to the number of postings, the seven international participants averaged 12 postings per student while the 10 native English speakers averaged 10.5 postings per student, a slightly lower number. This seems to indicate that the non-native speakers were actively using the advantage of the forum to express themselves. Indeed, the online forum seemed to be perceived as a good venue for those who were reluctant to speak up in class. An anonymous comment from the survey stated, “I get nervous in front of people . . . it [online discussion] might be good for shy students.” This point is in parallel with a posting in the online discussion:

(22) The shy students may not participate in class discussions, but they may feel comfortable to discuss online. (Week 2, Student E)

In one particular case, a non-native student contributed to several threads and responded to other students' difficulties with technical solutions with 20 postings, offering technical solutions, responding to others, and fully engaging in discussions. Evidently, this student was using the forum to actively contribute and respond to the comments of other students to an extent which would not be possible in the classroom, given the time constraints of normal classroom procedures.

Student participation also fluctuated over time. When the study first began, Week 1 started out with 100% participation, continuing through Week 6 with 94% and then began to slack off in numbers as the course reached Week 12. The highest percentage of students' participation after the first week, 94%, occurred in Weeks 2, 3, 5, and 6. Just after the midpoint of the course, in Week 7, participation began to decline steadily to 71%, then to 53% in week 10, and finally down to 47% of the students in Week 13 (see also Figure 8 below). This could

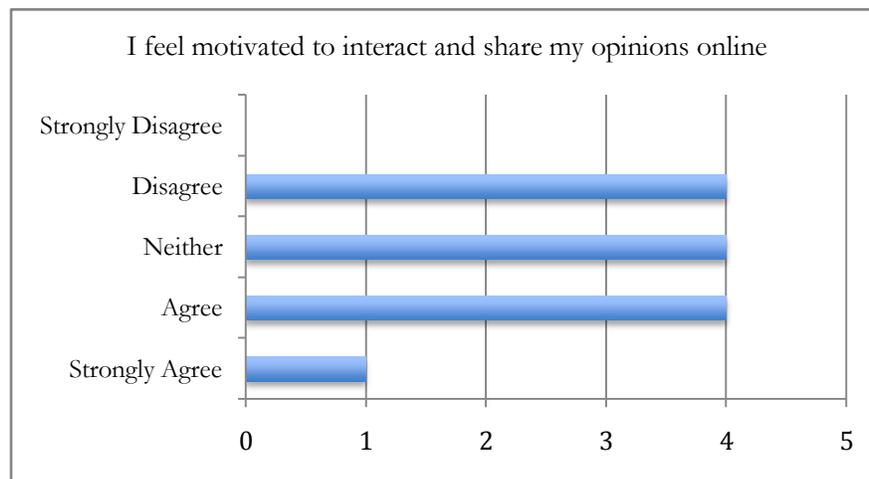
be due to the fact that after Week 7, students were collaborating intensely in groups to produce a teaching video, which took time away from other tasks. Seven students, less than half the class, continued to post in the last week of the course. Despite the drop in number of postings, the intensity of interaction between remaining participants was high and enthusiasm was evidenced by such comments as:

(23) I am thrilled with the concept of using a video as a teaching tool for ESL. I found a number of clips, some more hilarious than others, but also very informative. (Week 8, Student H)

Whereas the teacher had replied to all the students' postings by way of greeting in Week 1, by Week 11 she had reserved her response to corrective feedback and brief responses. It seems that with the teacher stepping out of most of the discussions, the students gained more control of the forum.

The students' degree of involvement can be additionally observed in the level of interaction among the students. The survey results indicate that about a third of the students (33%) felt motivated to interact and share opinions online (Figure 7).

Figure 7. "I feel motivated to interact and share my opinions in online discussion." (Item 5)



Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

In the online postings, interaction can be indicated in one way by the number of re-

sponse postings to other students' postings (as opposed to initial postings). Of the 216 total

postings, 47 were responses (22%). As can be seen from the number of postings in Figure 8, three students never responded to other postings; on the other hand, one student replied to others in more than half of her postings. The

data thus show only a slight discrepancy between students' perceived participation in on-line discussion and their actual postings. (See further discussion of Figure 10)

Figure 8. Students' postings by week

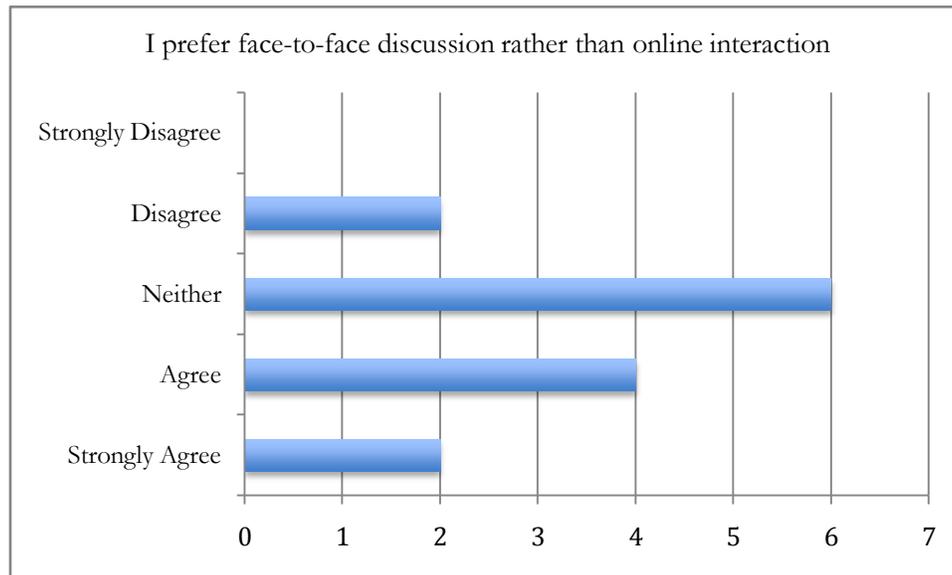
Students	Weeks ⁴												Total
	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	13 th	
A (NNS)	1P	2P 1R	1P	1P	1P 1R	4R	1P 1R	1P	1P	2P 1R	1P		20
B (NS)	2P		1P 1R	1P 1R	1P	1P	1P 1R	1P	1P	1P	1P	1P	15
C (NNS)	1P	1P	2R	1P	1P 1R					1P	1P		9
D (NNS)	1P	2P	1P 1R	1P		1P 2R	1P	2P	1P	1P 1R	1P	1P	17
E (NNS)	1P	1R		1P	1P	1P	1P	1R	1P	1P	1P 1R	1P	12
F (NS)	2P	2P	2P	2P	1P	1P	1P	1P	1P	1P	1P		15
G (NNS)	3P	1P	2P	1P	3P	1P	1P	1P	1P	1P	1P		16
H (NS)	1P	1R	2P		1P	2P	1R		1P	1P			10
I (NS)	2P	2P 1R	2P 1R	1P	1P	1P	1R	1P	1P	1P	1P 2R	1P	19
J (NS)	1P	1P	1R	1R	1P	1P	1P	1P	1R		1P	1R	11
K (NS)	1P	1P	1P	1P	2P	2P	2P	2P	2P			1P	15
L (NNS)	1P	1P	2P		1P	1P	1P	1P			1P		9
M (NS)	1P	1P	1P	1P	2P	1P		1P	1R		1P	1P	11
N (NS)	1P	1R	1R	1R	2R	1R	1R	1P	1P		1R	1P	12
O (NNS)	1P	1P 2R	1R	1R	1P	1R							8
P (NS)	1P	1P	1P	1P	1R	1P 1R							7
Q (NS)	1P	1P	2P 1R	2P 1R	1P	1P							10
Total	22	24	27	19	23	24	15	14	13	12	15	8	216
Participation	100%	94%	94%	88%	94%	94%	71%	71%	71%	53%	71%	47%	

Note. NS: Native English speaker; NNS: non-native English speaker; P: initial posting; R: response posting

The final aspect of the affective component that I examined was the students' overall attitude about online discussions vs. face-to-face discussions. Item 4 on the survey, "I pre-

fer face-to-face discussion to online interaction," was answered by 39% agreement and 13% disagreement (Figure 9).

Figure 9. "I prefer face-to-face discussion to online discussion." (Item 4)



Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

One student's online posting seemed to be consistent with the survey results. This student commented about the benefits of classroom interactions:

(24) Students] might prefer face-to-face discussion to online communication because they can use face expression, body language. (Week 2, Student A)

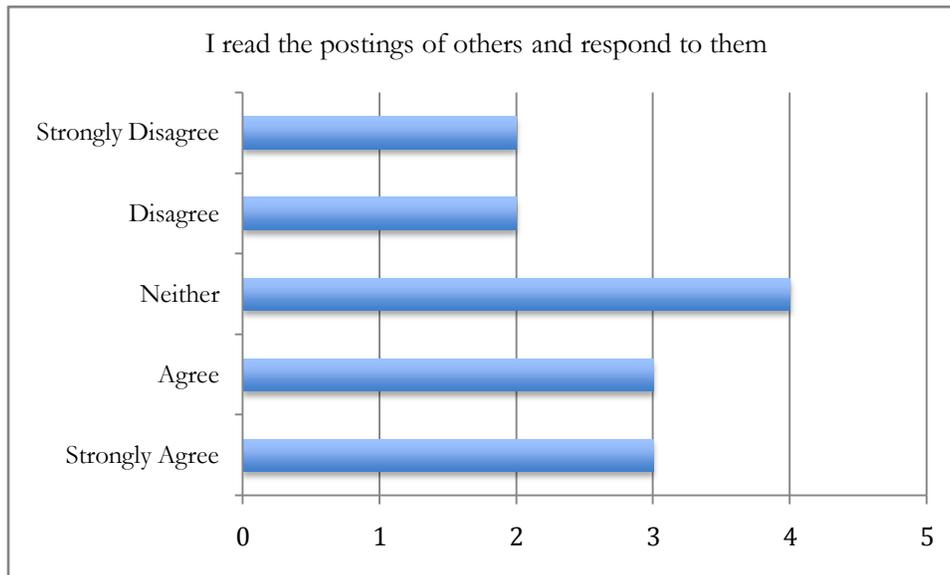
Overall, as I have shown above, many students expressed their feelings openly in the forum, voiced their opinions on a variety of issues that affected their learning in the course, and enjoyed the social aspects of the online discussions. The "threads" of discourse revealed that meaningful topics were being discussed beyond the actual contact that took place inside a classroom, which was an added benefit of online discussions. Perhaps what the data suggested is that while online discussions may have been highly beneficial, the students

still preferred face-to-face discussions if they had a choice. The third component surveyed is the behavioral component, and it will be examined in the next section.

Behavioral Component

The behavioral component of learners' attitude involved a "particular learning behavior" that was adopted by the learners as an outcome of their attitude (Vandewaetere & Desmet, (2006, p. 351). The item in the survey that addresses this dimension is Item 2, "I read the postings of others and respond to them." 40% of the students agreed with this statement and 26% disagreed. As noted earlier in the study and reported in Figure 8, only 22% gave responses to the postings of others in the online forum, which somewhat correlates with the 26% who *disagreed* that they read and respond to postings of others.

Figure 10. "I read the postings of others and respond to them" (Item 2)



Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

Comparing the students' answers on the survey with the actual postings, I found a discrepancy. While on the survey, 40% of the students indicated that they read and responded to the postings of others, only 22% of actual postings are responses (Figure 8). Thus, it seems that the students' perception of their interaction with their classmates online was higher than what is revealed in the online discussions.

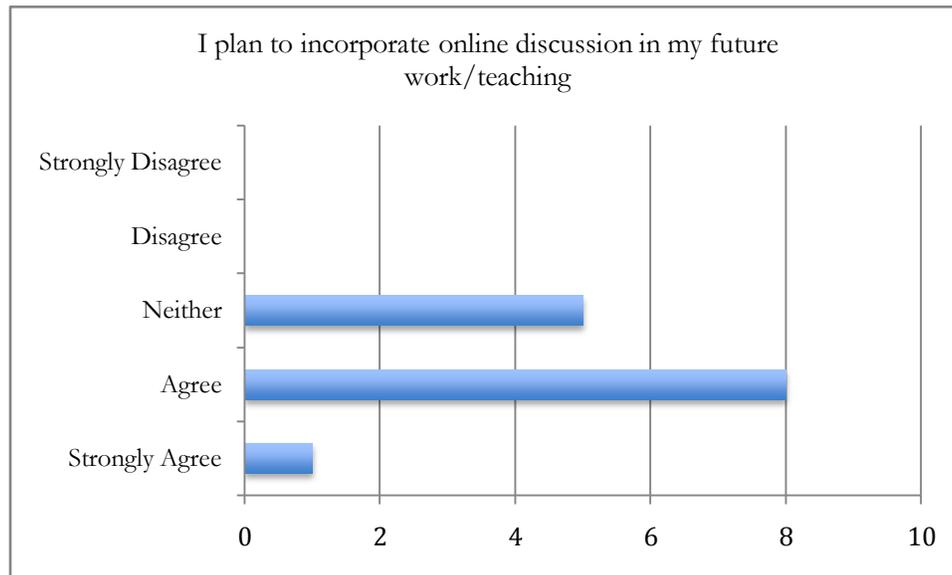
Students' attitudes toward their interaction with the technology component itself (INTERACT) were both positive and less than positive. The Interact component, as explained by Garcia (2001, p. 95), relates specifically to students' interaction with the computer technology. A student responded to a classmate's inability to manipulate a discussion tool feature:

(25) You could paste your text from Word into this Discussion by using the "Paste as plain text" button above the editing box (it's the third button from the left). (Week 2, Student A)

This example shows that some students were more adept at posting comments than others and were willing to assist one another to gain skill to use the online discussion tools.

My research question asked if students perceived the forum to be beneficial to themselves as teachers. Regarding the students' overall assessment of the discussion forum as a future teaching tool, 60% of the students agreed with the statement "I plan to incorporate online discussion in my future work/teaching" (Item 10, Figure 11).

Figure 11. “I plan to incorporate online discussion in my future work/teaching” (Item 10)



Note. Numbers at the bottom of the chart indicate the numbers of individual student responses.

This response indicates that the class's overall perception was positive toward online discussions as it pertained to use in future work. Comments in the students' postings related to their intentions to use CALL resources in future teaching were:

- (26) The students are able to communicate to the other students rather than the teacher, therefore they are more motivated to learn. This is interesting information, and I am curious to attempt this type of research in my own class one day. (Week 2, Student M)
- (27) I might apply these to my future teaching such as making a films in order to help my students understand the books/texts through aural and visual sources. (Week 9, Student A)

Discussion and Conclusion

From the results of the survey, it was evident that students had a positive attitude toward using computer technology and the course discussion forum tool. This attitude confirms the findings of previous researchers Palaigeorgious, Siozos, Konstantakis and Tsoukalas (2005).

The results of the quantitative and qualitative data showed general enthusiasm for incorporating CALL resources into future work or teaching. The students felt confident to express themselves freely online and used the user-friendly features of the learning course management system *Edu2.0* after they became acquainted with them.

The cognitive aspect of the study revealed a surprising result. From the quantitative survey data less than half of the participants (47%) thought that they had used critical thinking skills in their postings. In contrast, the qualitative data from weekly postings (76%) showed a large percentage of the class members were actually questioning their readings, comparing the readings with their own experiences and coming up with new ideas based on the course content.

Items relating to the affective component of the research showed that students felt highly confident to express themselves online, that they enjoyed the friendly feeling of seeing photos of each other, and that they learned more about each other through use of the forum. Many of them pointed out the advantages of online discussion, such as giving voice to those

who tend to hold their opinions back in a class situation, or felt that writing (posting) allows more time for thinking or formulating comments in a second language.

With respect to the behavioral aspect of attitude, students read and responded to the ideas presented by other students, but to a slightly lesser degree than they had perceived in the survey.

It was found that fewer students posted responses, yet those who did would post often and engaged in longer conversation threads. Despite the amount or quality of their individual involvement, students agreed strongly that they intended to use online technology such as the forum in their future teaching.

Contrary to the overall positive student attitudes found in this study, researchers have encountered findings in which motivation to participate in online discussion forums is not high. Warschauer (2000, p. 108) cited a study by Meunier (1998), who noted, "When on-line communication has principally been used for in-class conversation, students' motivation has not been as uniformly high." In the case of this group of participants, they actually did use the forum to extend conversation about class topics and some even stated that shy students can speak out more freely than in face-to-face discussion.

In conclusion, answers to the survey, along with quantitative and qualitative data from the weekly postings, reveal more fully the students' attitudes toward CALL. From their discussion

of the course content as related to their own experiences in education, the students showed that they were keenly involved in learning. They also commented that their discoveries in other areas of the course were beneficial to themselves as teachers of English and they would use CALL in their future teaching. Generally speaking, I believe that the forum was being used as it was intended: a vital communication space that extended classroom interaction between students, including the instructor.

As a small-scale study, this paper has several limitations. These limitations include the small number of participants, many of whom did not answer all the survey questions, inconsistency in some survey questions, and finally, the participation of the researcher as one of the subjects. The analysis of the students' postings could have been more in-depth to probe further into the students' exhibition of attitude in their discourse.

The findings also suggest some interesting questions for further research. For example, researchers could compare the attitudes between native English speakers and international students (non-native English speakers), or between advanced computer users and novice computer users. In a future study, researchers could investigate the reasons why students perceive themselves as not using critical thinking skills or as performing at a technological level lower than what they actually do in discussions.

Notes

¹ I was also included in the data. I responded to the survey as a student in the class and my postings were part of my performance as a student in the class.

² This combination of categories is due to the limit of the paper's length.

³ Not only did the students include photos, but my examination of the postings also revealed

that they also posted video clips found in their search of useful sites for future teaching. This seems to suggest that the students had a preference for visual elements in online discussions, both for interpersonal relationship (their personal photos) and content learning (embedded videos in postings).

⁴ Week 12 was a holiday.

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Appendix
Survey Questions and Response Percentages

1	I participate in edu.20 online discussion because it is a requirement for this course (Comment)_____	5 Strongly agree 33%	4 Agree 20%	3 Neither 26%	2 Disagree 13%	1 Strongly disagree 0%
2	I read the postings of others and respond to them (because)_____	Strongly agree 20%	Agree 20%	neither 26%	disagree 13%	strongly disagree 0%
3	I feel confident to express myself freely online (because)_____	Strongly agree 20%	Agree 53%	neither 20%	Disagree 0%	strongly disagree 0%
4	I prefer face-to-face discussion to online discussion (because)_____	Strongly agree 13%	Agree 26%	neither 40%	disagree 13%	strongly disagree 0%
5	I feel motivated to interact and share my opinions in online discussion (because)_____	Strongly agree 6%	Agree 26%	neither 26%	Disagree 26%	strongly disagree 0%
6	I like seeing pictures of other participants (Comment)_____	Strongly agree 20%	Agree 46%	neither 26%	Disagree 0%	strongly disagree 0%
7	I have learned a lot about my classmates from our online discussions (Comment)_____	Strongly Agree 13%	Agree 33%	neither 33%	disagree 13%	strongly disagree 0%
8	Which features of online discussion do you like the most? _____ Which features of do you like the least? _____					
9	I have used critical thinking skills in my online discussions (Comment)_____	Strongly agree 13%	Agree 33%	neither 33%	disagree 13%	strongly disagree 0%
10	I plan to incorporate online discussion in my future work./teaching (because)_____	Strongly agree 6%	Agree 53%	neither 33%	disagree 0%	strongly disagree 0%
11	My knowledge of course content has increased through online discussions (because)_____	Strongly agree 6%	Agree 40%	neither 33%	disagree 13%	strongly disagree 0%
12	I find online discussions to be. . . . (Comment)_____	enjoyable	Productive	rewarding	Not interesting	Boring
Student Profile	Male	Female				
Age	18-25 _____ 25-30 _____	30-35 _____ 35-40 _____	40-50 _____ 50+ _____			
Computer Skills	Beginner	Average		Advanced		
Personality	Introvert	Both		Extrovert		