Chinese EFL Students' Perspectives on the Integration of Technology

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Abstract

This study explores the centrality of the technology integration to Chinese EFL students' experiences in College English instruction. Students involved in this qualitative and quantitative study described the effectiveness of Web-based instructional environments (WBIEs) facilitated by the WebNing course management systems. Sources that were used for data analysis include online survey and oral interviews. The study demonstrates that students perceive the advantages of using Web-based instruction (WBI). They feel that the WBI greatly enhances their experiences by (1) developing their writing skills through online essay, (2) improving their communication skills through online discussion and (3) providing greater learner autonomy. Besides, Web-based learning empowers students to be actively involved in the learning process and to be responsible for their own learning. The findings of this study provide a useful reference point for those educators contemplating the implementation of a web-based instruction.

Keywords: College English instruction, Chinese EFL students, technology integration

1. Introduction

The integration of new technologies into foreign language curriculum has become a growing and significant component of foreign language instruction. Online course management system, especially asynchronous computer-mediated communication (e.g., e-mail, electronic bulletin boards), promotes interactive learning, which is central to the development of communicative language skills. In addition to providing opportunities for online activities, technology has become an integral part of learning and teaching. Previous studies have documented a number of benefits that students have gained by using Internet technology (e.g., Chun & Wade, 2003; Darhower, 2002; Lee, 2002a, 2004; Sengupta, 2001; Smith, 2003; Warschauer, 2000). Technology-enhanced instruction offers students unparalleled access to instructional resources, far surpassing the reach of the traditional classroom. It also makes possible learning experiences that are open, flexible, and distributed, providing opportunities for engaging interactive, and efficient instruction (Smith & Hardaker, 2000). Furthermore, cognitive-based theories of learning have extended the design and delivery of Web-based instruction, applying the technical nomenclature to instructional practices (Rovai, 2002).

As technology-enhanced instruction is new in China, whether it is effective as is often claimed is still largely unknown. Not much research has been conducted so far into the effectiveness of integrating technology in Chinese EFL instruction, probably because of its newness and its complexity. Therefore, this study serves as an initial examination of the empirical evidence for its instructional effectiveness. Systematic studies on how students perceive necessary conditions for online learning need to be carried out. By listening to the voices of students, teachers have the opportunity to reflect on their intended pedagogical efforts and further modify their strategies and instruction to meet their students' needs and interests.

The purpose of this study is to explore Chinese EFL students' perspectives on the effectiveness of using the WebNing course management system. The study presents findings on how students' roles, learning conditions, beliefs, and attitudes shape the understanding of WBI for foreign language acquisition. First, a theoretical framework for language learning will be discussed. Second, a design model, the participants in the project, and the technological tools and the

procedures used for online activities will be described. Then, the results of the study using online survey and final oral interviews will be reported and discussed along with suggestions for future improvement and research.

2. Theoretical Framework

Computer-mediated communication (CMC) is a widely used educational tool because it lends itself to instruction based on sociocultural principles. It has been suggested by Vygotsky (1978) and explored by many researchers (Aljaafreh & Lantolf, 1994; Anton & DiCamilla, 1998; Coughlin & Duff, 1996; Warschauer, 2000) that learning takes place in a social environment and is facilitated by dialogue. During this exchange of ideas, each individual interlocutor is able to internalize the new jointly constructed knowledge. Learning is therefore mediated by the context in which it takes place, the tools used to aid the learning process, such as dialogue, electronic messages, and Web pages, as well as by the participants involved in the learning process. This collaborative learning process is often facilitated by scaffolding, when interlocutors provide explanations, questions, and suggestions to assist each other in solving the current problems (Donato, 1996). Collaborative learning tasks encourage learner autonomy, build teamwork, alter the role of teachers and students, allow students to scaffold, facilitate class discussion, and promote critical thinking (Henri & Rigault, 1996). When students scaffold each other, they can ultimately reach higher-level understandings of tasks or solve problems they would have been unable to solve alone. When done through writing instead of speaking, as is the case in CMC, the writing process changes from an independently performed task to one that promotes use of the input and reflection of other students.

Apart from the cognitive benefits described above, students and teachers alike have witnessed the positive social impact CMC can have. Asynchronous electronic exchanges seem to foster the building of a learning community, where participants offer each other support and praise (Cole, Raffier, Rogan, & Schleicher, 1998; McKenzie & Murphy, 2000; Sengupta, 2001). The body of findings illustrates how "CMC creates the opportunity for a group of people to construct knowledge together, thus linking reflection and interaction" (Warschauer, 1997, p. 473). Therefore, it seems to be a good fit for promoting the type of student-centered learning that is central to the sociocultural theory of language learning.

Within this theoretical framework, the purpose of the project described below is to advance research that examines technology-enhanced instruction from students' perspectives. The multichannel Web tools of the WebNing allow teachers to create online activities which promote interaction and collaboration among students. This study investigates whether participation in a one-semester network-based course affects students' attitudes and beliefs toward the development of their English skills and the use of Internet technology.

3. The study

3.1 Participants

A total of 61undergraduate non-English majors (one class) from a southern university of China participated in the present study in the second semester of the academic year 2007-2008. The students participating in the study are between the ages of 19 and 20, and in their freshman year of college. They are required to use the WebNing to support their English learning. In terms of computer access and literacy, the students can do their course work in the computer learning center or on their own computers, and they have used New Horizon College English online system on campus prior to the study. Therefore, most of the students are familiar with online system operation.

3.2 Description of the project

The project is part of a required curriculum of College English and is developed to help college students improve their English competency with the aid of Internet technology. The primary teaching methods involve face-to-face instruction (four hours per week) with the integration of a web-based component, which consists of the following sections: course information (syllabus, lecture notes), assignments, student page, group page, discussion forum, and blogs. Each section is represented by an icon on the front page of the course. For this project, the WebNing serves as two major instructional tools. One is the content tool which delivers course materials, and the other is the communication tool which allows all users to interact with each other in cyberspace using "Discussion Forum" and "Blogs" (for more information about WebNing, http://onlineenglish2008.ning.com). The main objectives of this project are (1) to ensure that all the students could interact with course materials outside lecture time (thus enabling them to become "e-students") and (2) to increase student-to-teacher and student-to-student interaction in the Web-based instructional environments.

In the first week of class, the instructor informs students that they are required to use the WebNing to carry out a variety of online tasks in order to develop their English skills throughout the semester. Within the first two weeks of the course, the students are asked to use their e-mail account and password to login into the course, access the course materials, and use "Discussion Forum" and "Blogs" as part of their class participation credit. The online activities are scheduled in the course syllabus and are available online. To avoid the possibility of confusion and to make sure the students know where to go to complete online assignments, the instructor demonstrates to the students the major tools they will be using.

3.2.1 Online essay

Every week students are required to write an essay to answer the open-ended questions found in the 'writing' folder under the "Assignment". Open-ended questions are based on topics related to the text or daily life, such as environmental awareness or advantages and disadvantages of studying abroad. Posted online are a set of different topics, each with a dozen open-ended questions for essay writing (see sample essay questions in Appendix A). After completing the assignment, students send it to the "Blogs". All the students can respond to others' essays. The instructor then corrects the students' essays by writing comments and correcting mistakes on usage, vocabulary, and grammar. For instance, the instructor underlines each error and writes the code for the correction, such as "vt" for verb tense, "voc" for wrong word, and "prep" for incorrect preposition. The assignments are then returned to the students through the "Blogs". The students retrieve the documents and then respond to the instructor's feedback and correct the errors. Finally, they download the revised copy and place it in their "Page" as part of the course requirement.

3.2.2 Online Discussion

In addition to online essay writing, students are also required to post their opinions and responses to the discussion topics, and discussion assignments are posted every two weeks. The instructor uses the asynchronous forum board to engage the students in online discussion activity outside lecture time. The aim of online discussion is to allow students to freely express through informal social interaction their opinions and exchange ideas on the assigned topics (see sample online discussion questions in Appendix B). Discussions are based on such topics as the role of men and women in modern society or young adulthood. The instructor divides the class into small groups. Students first read the topic-based questions posted in the 'discussion' folder under the "Assignment" and then log into the "Group Page" for discussion. To enhance the discussion, instructions and the rules are developed by the instructor and posted to the students (see Figure 1). According to a study by Beaudin (1999), providing guidelines for online activity should be rated as an important criterion for keeping online discussion "on-topic". Discussion forum can replace the casual conservations that take place between students and have a permanent written log. As Clark (2001) points out "students have ample time to read other students' comments, do research and formulate a detailed response". Several threads are set up in the forum board. Students are aware that there is a regular moderating presence, and the instructor regularly accesses the discussion forums, posts comments and answers questions.

4. Results and discussion

4.1 Online survey results

In order to know about students' general attitudes toward the WBI, within two weeks of the completion of the project described above, all the students taking the WBI are required to finish a questionnaire and short-answer questions, which are posted in the WebNing as a survey.

The questionnaire contains 18 statements with which students are asked to indicate whether they strongly agree, agree, disagree, or strongly disagree. These statements elicited information about students' perspectives in four categories: 1) the usefulness of WBIEs, 2) the effect of WBI on learning subject matter and skills, 3) the effect of WBI on students' interest, and 4) the effect of WBI on students' confidence as learners, technical skills, and performance on course assessments.

The data of the questionnaire are reported in percentages of students' response for each statement, as shown in Appendix C. The statements are ordered from those receiving the highest number to the lowest number of responses expressing agreement.

4.1.1 Perspectives on Web-based instructional environments

The WebNing creates an active and supportive instructional environment in which students interact socially with each other as they expand their use of English beyond the classroom. Most of the students (81.3%) praise the unique learning community created by the WebNing, and they say they enjoy using WBIEs. Over 60% reports that they have more interaction and communication with the instructor, as well as with their classmates. They acknowledge that the WebNing make communication very efficient and effective because they are able to receive responses very quickly from their classmates and constructive feedback from the instructor. More than half (58.3%) feel free to ask questions. Being able to work and share opinions with others is a valuable concomitant benefit of online exchanges.

When asked if the WebNing is used comfortably, 67.6% of the students admits that they are comfortable using it. This finding supports the work of Salmon (2000) who finds that students need to feel competent about how to use WBIEs before they are comfortable with exchanging ideas and information.

4.1 .2 Perspectives concerning the effect on learning

After a semester-long experience with the WBI, more than 69.6% of the students feel that they have learned more language skills than they would have learned in a regular class. 60% of the students state that their writing skills have improved because of online writing activity. In addition, a slight majority of students (52.2%) find writing topic-based online essays is enjoyable and profitable.

The asynchronous discussions are the most innovative aspects of the developments presented in this project. Regarding the online short-answer question survey, a basic summary of their comments about online discussion are overwhelmingly positive toward the use of the communications tools and this is also enforced through students' voluntary participation in the online discussion activity (see Figure 2). It is important to accept the adoption of specific on-line learning styles because it will have an influence on the outcomes of their learning in the future.

The online questionnaire results show that half students (50%) feel that they have learned a considerable amount from the online discussion activity. Linguistically, students feel that the process of composing ideas allows them to recycle the vocabulary and structures they have previously learned as they read and respond to their classmates. Cognitively, they feel that they are challenged by their limited linguistic skills and that they have to stop and think about what they can say and need to say in order to get the ideas across to their partners.

Lastly, only 27.9% of the students believe that working with their classmates has contributed significantly to the development of their communicative skills. Conrade (1999) finds that when compared to fourth semester students, first semester language students give low priority value to communicative skills. Therefore, since the students in this project are first semester students for WBI, this may explain this finding.

4.1.3 Enjoyment and interest

According to the questionnaire results, the most majority of the students (73.2 %) agree that the WebNing makes the course more interesting, and two-thirds (65.9%) says that if given a choice between a regular English class and a WBI, they will take the latter. In addition, more than half of the students (53.45) report that they enjoy doing the online assignments better than traditional assignment.

Interestingly, these findings coincide with the online written feedback that the majority of the students speak favorably about the WBI (see Figure 3), describing it with 52 positive adjectives, compared to 3 negative ones. Among positive adjectives, the most common are "interesting / interested" and "good". Students attribute to 56 strengths to the project, while listing only 16 weaknesses.

In the questionnaire, when asked if Web-based learning can take the place of live lectures, 66% of the students state that they find the online learning experience worthwhile but not as a replacement / alternative to face-to-face contact, but rather as supplementary learning method. More positive results may have emerged if the word "alternative" had been omitted, possibly replacing it with "additional". This emphasizes the need to establish the rationale for using a Web-based instruction to the students with the notion that the aim is to supplement and enhance their learning and is not to replace face-to-face interaction.

4.1.4 Perspectives concerning effect on confidence as a learner, technical skills and class assessments

For a clear majority of students, WBI appear to have had certain benefits. 79% of the students report that they have gained confidence in their ability to complete the online activities. A majority (54.4%) also believe that they have gained confidence in their ability to use technology successfully. These findings corroborate research showing that using WBI makes students gain confidence in language use as well as in the use of the computer (Beauvois, 1994; Cononelos & Oliva, 1993; Lunde, 1990).

In addition, almost two-third (64.8%) expresses a gain in confidence as independent learners. This finding has supported results from the Blackstock study (1993) which concludes that students engaged in technological interactive learning environments become independent "knowledge navigators". These beginning students successfully and independently negotiate the linguistically complex Internet and interactive environment.

As for class assessment, only 40.8% of the students state that their WBI experiences help them improve their scores. Nowaczyk (1998) finds that students attribute learning value primarily to those multimedia components that directly related to course examinations, regardless of the intrinsic learning value of the material. Warschauer (1996) also finds that the degree to which computer-based projects are integrated into general course goals and structure correlated to differences in student motivation. The less enthusiastic perspectives concerning the general experiences in the WBI may be due to the fact that there was no direct link between individual electronic components and classroom assessments and structure.

4.2 Oral interview results

In addition to the online survey, an oral interview is given to the students at the end of semester. During the interview, students are asked to describe their experiences with online activities and to explain the most valuable, interesting and difficult aspects of the WBI. All the interviews are recorded for the data analysis. Analysis of the qualitative data from oral interviews reveals that the majority of students regard the Web-based learning as having a very beneficial impact on their language development. However, they make some suggestions for future improvements. The following discussion highlights important issues that students express regarding the WBI for English learning.

4.2.1 Development of writing skills through online essay writing

The goal of online essay writing is to build proficiency through describing, narrating, explaining situations, and expressing opinions in different contexts. After the one-semester writing practice, the majority of the students feel that their writing skills have improved. The following comments made during the interviews reveal students' rewarding experiences with online essay writing:

♦ Now I am more confident with my writing through writing so much in the WebNing.

♦ As for writing, I don't feel like I have a big problem, and I think I have lots of ideas on everything, which helps me a lot to write. But then looking at other people's ideas, I think mine is too narrow. Other people's perspective broadens my mind, and I think I really see things more in-depth and widely.

♦ At the beginning, I have some problems with the grammar and vocabulary. I spend a lot of time looking for words in the dictionary. I feel that I write better now and I'm able to express my opinions easily.

Students agree that at the beginning of the semester per week writing involves a lot of work. By the end of the semester, many of them are proud of how much and how easily they can write. One student during the interview recalls her change of attitude towards the writing requirement, commenting:

♦ At the beginning I am skeptical about using the WebNing for writing assignments. But after a few weeks, I get used to it and find the online writing very rewarding. The topics are very interesting to me. I have never written so many essays in English. I believe my writing skills have improved.

Regarding the topics for online essays, students find open-ended questions stimulating and meaningful because they are able to express their voices through their own life experiences. A few students, however, experience difficulty in being able to fully express meaning in the target language. One linguistically weak student admits during the interview that:

♦ The topics are too difficult to me. I feel frustrated not being able to express myself in English. The writing process is overwhelming for me. It takes too much of my time writing essays. I often end up translating my ideas from Chinese to English. I think I need a lot of help.

This student further suggests that the instructor should provide students with more guidance on how to write English essays.

4.2.2 Enhancement of communication skills through online discussion

According to Lamy and Goodfellow (1999), a task that simply requires social conversation may not stretch learners' ability with language production. Pica, Kanagy, & Falodun (1993) emphasize that tasks without a specified goal may not push learners to use their linguistic resources for negotiation of meaning. The goal of online discussion is to engage students in sharing, exchanging, and debating information relevant to their life experiences. Participating in this form of social and text-based interaction is a modern enactment of Vygotsky's idea of learning as a social-cultural process where language is an essential vehicle for development. WBIEs not only encourage students to use English but also reinforce their thinking skills and communication strategies, which are crucial for successful online interaction. Students praise the opportunity to use the target language in a natural way and feel that their communication skills in English have improved after participating in the online discussion. Students make the following comments during the interview:

♦ I like online discussion because we can share our ideas. It is necessary to think in English more rapidly than when you write the homework. This is more like the real world.

♦ Through online communication, I realize that I need to enlarge my English vocabulary because on many occasions I do not know how to say certain words and I have to look them up in the dictionary. I find it very interesting to learn English by using English.

Online discussion is perhaps a less intimidating environment than the classroom, and encourages shy students to express their ideas without feelings of embarrassment. There are no anonymous postings to ensure that every student participates, but these alternative methods provide a range of opportunities to encourage those students who might not necessarily contribute face-to-face. It is important to provide a range of learning opportunities to try to engage all students. Online discussions perhaps provide an approach to engage those students who prefer not to ask questions in the classroom, in front of their classmates and the instructor. One student during the interview expressed her feeling of ease while being online:

♦ I hate speaking in front of people, but I feel comfortable chatting with my classmates online. Although I am very slow in composing my ideas, I do not feel nervous in the virtual learning environment. Now I'm more comfortable expressing myself in English. The WebNing is very helpful and valuable for me. It motivates me to speak more in class.

WBIEs offer a great affective support to the shy students so they can carry out the shared task without feeling pressure as intensively as they do in front of the class. In other words, WBIEs built up students' confidence and encourage those who are reluctant to participate in oral discussions to speak up in class (e.g., Chapelle, Compton, Kon, & Sauro, 2004; Lee,

2002a). Furthermore, Sweeney (2001) demonstrates that Asian students with weaker English-language skills have a more positive evaluation of bulletin board discussion as they offer more space for them to prepare their opinion and responses.

4.2.3 Improvement of learner autonomy

All of the participating students feel that the experience is very interesting and rewarding. Although they have prior experience using computers for learning and communication, it is the first time they use computers for discussing and writing in English and they find it exciting. As one of the students exclaims, "English suddenly becomes familiar and close to me. This is so different from high school English classes!" They like it because one of the major functions of the WebNing is supported by the content tool by which course materials are organized and presented in a logical manner in a single shared space. The results of the study show that easy access to all materials and tools facilitate the learning process. Most of the students quickly adapt to doing and checking their homework online. More importantly, they learned how to organize their work by retrieving documents from the "Blogs" and placing them into their "Page". The following comments from the final oral interviews demonstrate just how the students feel that the use of the WebNing have enhanced their organizational skills and motivated them to become independent and self-directed learners:

♦   Frankly speaking, I'm not a very organized person. After sending and receiving so many essay assignments from the "Blogs", I couldn't find them to make revisions. In order not to get lost, I learn to place everything in the order. The WebNing makes me organize things better.

♦   I think it's easy to get lost if you don't know where things are. As we have to do so many things through the WebNing, I have to learn how to organize them in a logical manner.

A few students, however, remark that it is confusing and easy to get lost at the beginning because of the abundant information presented in WebNing. Each document the students send to the instructor's "Blogs" shows the time and the date of that document. Several students have difficulty keeping up with their work and complain about the amount of work required for this course. These students often do their homework at the last minute for the online discussions. One student admits that he has learned to organize his work by making plans and not falling behind in the course schedule. This student further gives explanation that the WebNing has forced him to be efficient and self-disciplined. These comments imply that learners' self-sufficiency and independency play a crucial role in Web-based instruction. In other words, students need to learn to be in charge of their own learning and become actively involved in the learning process as previous studies have shown (e.g., Lamy & Goodfellow, 1999; Lee, 2002a).

5. Conclusion

This study has illustrated the experiences and perspectives of one group of Chinese EFL students about the integration of technology into English language classroom instruction. While a one-semester investigation is limited in scope and depth, the project has succeeded in making many students understand what is required to be successful when using the WBI. The use of the WebNing as an instructional tool has facilitated the development of students' language skills, reinforced their cognitive skills, and supported an active learning environment. Students have benefited from online discussion and writing practice. The findings show that they are content with and motivated by the well structured online tasks and that they expand the use of the target language to enlarge their knowledge beyond the classroom setting. Besides, this study also reveals that online-based learning empowers students to be actively involved in the learning process and to be responsible for their own learning. Furthermore, the study demonstrates that WBIEs facilitate the interaction between the students and the teacher as the latter has systematically guided, assisted, and provided constructive feedback to the students.

There are several limitations to this study, including the fact that student information is self-reported and self-assessed. In addition, the duration of this study is relatively short. Finally, this study focuses on a small population, and therefore, data may not be generalized to other foreign language classrooms. Nevertheless, since little research is available on Chinese student perspectives on English language learning in Web-based environments, this study may provide insights to universities currently implementing the implementation of WBI.

More empirical studies should be conducted to examine students' perspectives on the synchronous interaction via discussion boards in the WBIEs. In addition, studies should be conducted concerning the role of the teacher in the WBIEs, in order to identify those teacher behaviors and interactions most favorable to students' second language acquisition. Finally, further studies that include native-speaker online exchanges using Web-based instruction will advance the knowledge of how students perceive the role of interaction in a socially collaborative context. Such studies may contribute to a future knowledge base that will shape and improve curriculum and instruction mediated by technology.

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Appendix A: Sample Questions for Online Essays

Week 2:

After finishing Unit 2, you may have more knowledge of the environmental problems. 1) Could you tell us which issue concerns you and rank them in order of importance: a) river and sea pollution; b)Antarctica; c) destruction of the ozone layer; d) whaling; e) pollution from cars; f) nuclear power; g) nuclear waste; h) acid rain; i) the greenhouse effect. 2) Are you satisfied with the government's performance on environmental matters? 4) Have you noticed deterioration in your local environment in the last ten years? 5) Please tell us about other environment anxieties which may be concerning you.

Week 4:

If you are given a chance to study abroad, where do you want to study? Why? What do you want to study? Why? What might be the advantages and disadvantages of studying abroad? Do you think our government should encourage Chinese to study abroad.

Appendix B: Sample Questions for Online Discussion

Topic 1: An ideal youth

What is an ideal youth for you? Exchange ideas with your classmates. Do you think young people nowadays have too much responsibility and little freedom? Explain your reasons.

Topic 2: The role of women and men in today's society

What are the roles of women and men in today's society? Do women have the same rights as men? Explain your reasons.

Appendix C: Summary of the Questionnaire

Table 1. Perspectives on Web-based Instructional Environments (WBIEs)

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	%	%	%	%	%
5. I think WBIEs were useful to English learning	5.6	13.1	52.8	28.5	0.0
11. I felt comfortable in the WBIEs	7.3	22.9	49.2	18.4	2.2
18. I had more interaction and communication with the instructor in the WBIEs	16.8	19.6	45	18.4	0.3
9. I had more interaction and communication with my classmates in the WBIEs	14.0	25.4	48.3	11.7	0.6
14. I felt free to ask questions in the WBIEs	14.8	26.4	43	15.3	0.6

Table 2. Perspectives Concerning the Effect on Learning

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	%	%	%	%	%
4. I learned more English language skills than I would have learned in a regular English class	6.4	20.7	33.2	36.3	1.4
12. I believe online essays have improved my writing skills.	13.4	25.8	40.2	19.8	0.8
15. I enjoyed writing topic-based online essays	16.2	31.3	39.9	12.3	0.3
17. I think online discussion has enhanced my communicative skills	13.4	35.8	40.2	9.8	0.8
8. Working with someone online was beneficial to me	26.8	42.5	21.8	6.1	2.8

Table 3. Perspectives on Interest and Relevance

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	%	%	%	%	%
1. The Web-based learning experiences made this a more interesting course	8.7	17.6	52	21.2	0.0
3. If given a choice between a regular English class and a WBI, I would take the latter	10.6	23.5	50.3	15.6	0.6
10. I enjoyed doing the online assignments better than traditional assignment	20.1	24.3	39.7	13.7	2.2
7. The tasks I performed on the Web were interesting	22.1	27.1	43.9	6.7	0.3
6. I found learning in a Web-based instructional environment a worthwhile experience as an alternative to face-to-face lecture	22.1	43.9	28.8	4.2	1.1

Table 4. Perspectives Concerning Effect on Confidence as a Learner, Technical Skills and Class Assessments

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
	%	%	%	%	%
2. I was confident about completing assignments through the Web	4.5	16.5	63.4	15.6	0.0
13. I have become a better problem-solver after using the computer while learning English	6.1	28.2	52.8	12	0.8
16. I gained confidence in my ability to use technology successfully	14.8	29.6	44.1	10.3	1.1
6. I was confident to get a good grade in the course	22.1	34.4	32.7	8.1	2.8

Table 5. Rules for Online Discussion

1	Do not be afraid of posting the wrong answer—this is a discussion, not a test.
2	All messages must be relevant to the topic discussion.
3	All the students must participate— i.e. lurking is not allowed.
4	Before posting make sure that your messages are concise, and grammatically correct.
5	All dialogue is archived for you to return to for reflection at a later time.
6	Each group should nominate a group leader and only that member of the group should be logged in.

Table 6. Question: What do you think of online discussion?

Positive Comments	Negative Comments
We would not have discussions like this in the regular class	I find it difficult to get my message across without speaking face-to-face
Interesting and good fun	Big group can be confusing
Other students' views are important and they give you more ideas and can broaden your vision	Time consuming. I need face-to-face for communication
Good and remarkably fast discussion	It will be better with a small group
Fun and a good learning experience Let's have more of these activities	
You certainly learn from it.	

Table 7. Question: What do you think of this project?

A. Adjectives	Number	B. Likes	Number
Interesting / Interested	15	Using computers	10
Good / Nice	10	Group discussion	9
Boring	3	E-mail	9
Enjoyable, liked	5	Essay writing	8
Exciting	4	Cooperative learning	4
Fresh / new	4		
Exciting / wonderful / great	6	**C. Dislikes**	
Useful	2	Didn't like group discussion	4
Encouraging	3	Didn't like learning by computer	4
meaningful	3	Didn't like essay writing	3
D. Strengths		**E. Weaknesses**	
Improved English	16	Not enough test-related skills	5
Improved writing	11	Too time consuming	4
Improved grammar	6	A lot of work	3
Improved communication	6	Students lack computer skills	3
A good learning experience	5	Many new vocabulary	1
Improved confidence	3		
Improved computer skills	3		
Improved typing skills	3		
Learned from others	3		