Cooperative Teaching and Learning Using a Web Cafe in College EFL

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This study investigates the effect of cooperative learning using a web café in a college EFL context. The researcher worked with two teachers for 15 weeks. There were 28 students in the control group and 32 students in the experimental group. The data were collected through the teacher journal, students’ achievement tests, survey questionnaires, classroom observations, focus group interviews, and the web content on the café. The results showed that there were no statistically significant differences in the students’ mid-term and final test scores. However, though the students valued of cooperative work and frequent sharing of learning materials both in class and on the web café, they were more concerned with completing the task and manifested parallel patterns in their work. The teacher also acknowledged the difficulty of managing the students, lesson content, and classroom activities within time. Accordingly, the use of cooperative classroom activity or technology does not necessarily guarantee ‘successful teaching and learning’ unless both the teacher and students have substantial experiences in cooperative work and the use of technology both. Some insightful pedagogical suggestions are also presented for those who use and want to use a more technology-based cooperative approach of teaching EFL.

I. INTRODUCTION

As more theories and innovative pedagogical methods have emerged since 1970s, the two striking developments departing from the transmission model of teaching are worth noting. One is the growing acceptance of and interests in more student-centered approaches of which essence can be captured in the terms such as cooperative and collaborative learning (e.g., Bruffee, 1999). The other is the integration of computer-related technology as manifested in the terms such as CALL, ICT, CMC, MALL, or e-learning (e.g., Chanier, 2000; Chapelle, 2001; Henrichsen, 2001; Warschauer & Kern, 2000).

However, as inherent in any educational research and practice, many pending issues
remain in cooperative and technology-based teaching in ELT. For example, constantly debated is whether the teacher can induce truly meaningful cooperation in the classroom where many visible and invisible factors come into play. In other words, in the current web of discursive practices revolving around communicative language teaching, widespread is the unexamined assumption that learners work more interactively, for instance, in task-/project-based activities. Furthermore, many educators seem to hold a blind belief that the use of technology in the language classroom is a must and will bring about automatically successful outcomes. Given such naivété regarding cooperative learning and technology use, it seems that more contextualized classroom-based action research is much needed in order to reflect diverse aspects of the real classroom. Accordingly, this study reports the process of using a Web-cafe in the context of cooperative learning in a college EFL context and, also, presents some suggestions for using computer- and web-based cooperative learning activities in the language classroom.

II. LITERATURE REVIEW

1. Cooperative Teaching and Learning

In an effort to enhance current ELT, which is mostly based on merit-based and competition-oriented learning programs, many educators and researchers suggest cooperative teaching and learning (CTL) where the teacher helps students work together as a group instead of competing against one another (e.g., Bruffee, 1999; Johnson & Johnson, 1989; Slavin, 1990). In this sense, CTL can be defined as an approach in which the teacher facilitates a group of students to endeavor to achieve common instructional goals together. Accordingly, in CTL, students are expected to not only develop their thinking and interaction skills but also share the sense of achievement together (Slavin, 1995). Such thinking is closely associated with cognitive and social constructivism in that knowledge is a social product and constructed through interaction among social members (Vygotsky, 1986; Warschauer, 2000). In other words, CTL can help students establish their own objectives, plan concrete actions, seek help from others in and outside classroom, and, eventually, achieve desirable learning outcomes such as better academic performance, the sense of responsibility and ownership of learning, the enhancement of problem solving skills, and understanding of the importance of sharing in the process of completing the task (Johnson & Johnson, 1996; Johnson, Johnson & Holubec, 1993). Thus, many teachers use a number of different types of CTL such as group work or investigation, team-based projects, task-based and jigsaw activities, and problem-based learning or inquiry approach (Harris, 1995; Harste, Laffey, Tupper, Musser, & Wedman, 1998; Slavin, 1995; Chang-sup Sung, 2001).
Putnam (1998) lists seven important elements in CTL as follows: 1) positive interdependence among learners, 2) individual accountability, 3) development of cooperative skills, 4) face-to-face interaction, 5) student reflection and goal setting, 6) heterogeneous grouping, and 7) equal opportunity for success. However, the use of CTL does not always guarantee success. For example, Johnson and Johnson (1989) and Slavin (1990) observed that general learning environment must be favorable for meaningful interaction and that learners’ needs and learning styles should be considered. Joyce (1992) suggests that even though CTL has great potential, it is less effective when performed partially or infrequently.

CTL is believed to bring many positive results such as students’ better academic achievement, enhancement of their self-esteem, active engagement in learning, development of social skills, and receptiveness of and friendliness toward their peers. First, Johnson and Johnson (1989) performed a meta-analysis of 323 research studies on CTL and determined that the participants in more than 50% of the studies showed better academic achievement compared to individual learning and competition-based learning. In fact, only 10% of the studies showed that the participants favored more individual and competition-oriented learning. Second, in view of the improvement in self-esteem, Johnson and Johnson (1989) reported that among the examined 77 studies, more than half reported the enhancement in students’ self-esteem in CTL whereas less than 1% reported that it was so in competition-based learning. Slavin (1995) examined fifteen research studies and revealed that though the results were not fully consistent, 11 studies reported improved self-esteem among students as a result of cooperative learning. Third, active learning often occurs in CTL in which students can discuss issues and problems with peers who may have similar cognitive abilities and whose explanations may be easier than those of the teacher’s (Johnson & Johnson, 1989). Since learners are frequently exposed to repetitive explanations and diverse problem solving skills, they tend to actively participate in cooperative activities. Fourth, with regard to social skills development, Slavin (1977) studied the effect of CTL on emotionally disturbed students and discovered that these students interacted with peers more normally than when they were in the traditional classroom. Lastly, it is observed that peer acceptance and friendship naturally occur in CTL. For instance, both the underachieving and problematic students favored their peers more in CTL (Johnson & Johnson, 1989; Johnson, Johnson & Scott, 1978; Johnson et al., 1983). Putnam (1998) also asserts that students should be taught in cooperative contexts more systematically so as to resolve conflicts and individual differences.

In the field of ESL and EFL, it is reported that CTL increases students’ motivation (Brush, 1997; Slavin, 1995), thinking abilities (Yager, Johnson & Johnson, 1985), and communicative abilities (Brush, 1998). Furthermore, collaborative interaction has been considered a key factor in developing language learners’ communicative competence
Specifically, Gass and Varonis (1994) and Mackey (1995) investigated the effect of collaboration in teaching speaking while others suggested the importance of collaboration in teaching writing (e.g., Dale, 1994; Lockhart, 1995; Young In Moon, 2000; Shi, 1998). Seonghee Choi and Jeongsoon Joh (2002) also reported that the majority of the ninety seven EFL teachers researched viewed cooperation using small group activities positively since it helped students engage in autonomous learning. In fact, more than 60% of the teachers surveyed answered that they used or planned to use cooperative group activities.

2. Web-based English Teaching and Learning

The use of computer technology and other media in ELT has been intricately interconnected with structural, cognitive/constructive, and socio-cognitive views of how learners engage in learning target language (Kern & Warschauer, 2000). Accordingly, there have been different understandings of computer technology such as computer-as-tutor, computer-as-pupil, and computer-as-tool (Jonassen, 1996). However, in order to overcome some limitations in computer-/technology-related research such as the myth of computer as a method in CALL, effectiveness-focused quasi-experimental and comparison studies (Chapelle, 2000, 2001), some researchers have focused on not only learners’ cognitive processes of acquiring target language but also incorporated sociocultural theory of learning. Socioculturally mindful researchers focus on social interaction and provision of more meaningful and real communicative contexts in and outside the classroom (Wilhelm & Friedemann, 1998). In addition, more research has been conducted to investigate contextual factors, task features, and discursive patterns related to the use of technology (Chapelle, 2000). Such research clearly reflects the importance of negotiation of meaning through lived-through experiences among the teacher and learners in diverse sociocultural contexts of learning including hyperreal cyber space (Vygotsky, 1978; Warschauer, 2000).

In ESL contexts, Braine (1997) presented that students interacted with each other more and valued their experiences in a cooperative writing program. Warschauer (2000) documents how technology is used in four different ESL or foreign language university classrooms in Hawaii. His research revealed that each classroom activity and students’ levels of participation were drastically different depending on how teachers set up the structure of using computer technology. In Warschauer’s study, the students’ interest decreased when the teachers provided simple structurally-based and fragmented language activities or unauthentic activities. On the other hand, more cooperative learning occurred during the technology-mediated activities because the teachers were sensitive about their own belief systems and pedagogical orientations, different nature of media, the students’
use of diverse signs and symbols, and the students’ understanding of authentic purposes and identity development.

In Korean EFL contexts, Yang Soo Jung (2001) also suggested that the students in CTL were able to experience more and understand real communicative English better. Hee Jae Shin and Chung Ja Kwon (1998) also reported that the students who took an English writing course through the Internet and used emailing lists, usenet news group, and web searching were more at ease with writing in English and showed improvement in word choices and the content of writing. It was also noted that the students attested that they learned not only English and target culture but also felt more bonding among group members. Hee-jeong Ihm (2000) also presented in her qualitative research that there was more meaningful interaction among her twenty students in a writing course at a continuing cyber education program. Jeong-Ryeol Kim and Hye Sook Kim (2004) also reported how the teacher and thirty sixth graders used a web bulletin board to post assignment and feedback. It was also reported the students’ self assessment of their attitudes and levels of participation showed a statistically significant difference.

Based on her study using synchronous chatting between a native speaker of English and two collegiates for one semester, Dami Lee (2004) reported that there were various negotiations of meaning, especially for lexis and content of the chatting among participants. Eun Young Park (2003) utilized MSN or Daum messenger text-chat of which the content was cut and pasted in the bulletin board later with thirteen Korean female adults in a community-based English program for eight weeks in order to investigate how they negotiated meaning. She reports that the students used many communication strategies including ungrammatical and inappropriate use of target language. She also suggested a possibility of providing more self-correction opportunities for learners through online tasks and activities. Based on the data from the interaction of the two teachers and thirteen college students who volunteered to participate in the activity, Jin-Tae Chang (2003) reported that even though the students realized that they could become more independent in learning, the teacher and tasks played important roles in CMC-based learning activities. However, he observed that using email and chatting do not automatically guarantee autonomy for language learners.

In sum, many studies on CTL have been conducted on the assumption that CTL in the form of group work or in the context of using computers, the Internet, and/or web-based programs results in better learning outcomes due to more opportunities for meaningful interaction and, more importantly real use of target language (e.g., Hooper, 1994; Renie & Chanier, 1995; Romiszowski & Mason, 1996; Sherman & Klein, 1995; Son & O’Neill, 1999). However, given rather a short history of using technology in ELT classes and its integration into the context of CTL, more contextualized research is needed to investigate not only the effects of treatments but also the process of using a CTL using diverse
technology in ELT contexts. Therefore, in this study, both quantitative and qualitative approaches of looking into the effect and processes of cooperative web-based EFL learning are done to shed some new and critical lights on teaching EFL in college or university settings. Accordingly, this research study investigated 1) the effect of using a web cafe in the context of CTL on students’ learning, 2) the students’ views on a web-based CTL, and 3) recurring instructional characteristics in a web-based CTL classroom. In addition, critical aspects to be considered in utilizing technology in CTL in teaching EFL are also presented based on the results of the study.

III. METHOD

1. Research Context

The current study was performed in the first semester in 2004 at a university located in the central part of Korea. The data used in this study were from a large research project funded by Korea Research Foundation of which the overall results were published elsewhere earlier (Chang-Sup Sung, Kiwan Sung & Yung Suk Jung, 2004). However, the foci of this study are quite different from the previous one. This study takes more of a balanced approach of both quantitative and qualitative research methods and also engages in critical analyses of recurring theoretical and practical issues in CTL and technology in ELT.

The class where this particular research was done was offered as a general English requirement for all freshmen. The class met four times a week for an hour and half. It was a four credit and six-hour course. The textbook used in this class was All in One: Book 1 (Chung Hyun Lee, Myun Sun Kwak & Lynch, 2004) and composed of fourteen units. Each lesson consisted of warm-up, speaking, pronunciation, grammar, listening, reading, and writing parts. This class was meant to be a team-teaching course and was taught by both a Korean and a native English speaking teacher (NEST). The Korean teachers taught three times in Korean and English while the NEST one time per week and used English only. However, interaction between the Korean and NEST teachers was limited to a meeting before the semester and occasional communication to file the grades, mostly through the assistants at the department. In fact, the class was totally separate in that the Korean teacher covered the warm-up, grammar, listening, reading, and writing sections while the NEST taught the speaking and pronunciation sections. Accordingly, this particular research only concerns the sections taught by the Korean teachers.
2. Participants

1) The Students

The teachers and students were selected through a convenient sampling but the treatment was given randomly. Two groups of students participated in this study. The control group initially consisted of 30 students but the data from 28 students (10 males and 18 females) were included. The two students were excluded since they did not take the pretest and the two exams during the research. 10 students were English majors while the rest of 18 students were the Department of Undecided Major. For the experimental group, 32 students from Tourism and Hotel and Restaurant Management (17 males and 15 females). In order to make sure the two groups were identical, the students were given a short-version of TOEIC test to assess their English levels.

2) The Teachers

At the beginning of the research, the teachers and the students were contacted and given rather detailed explanations about the research project. The teacher in the control group was in her mid-thirties and majored in Education and English. She had been teaching general English for several years in the school. Her teaching evaluation showed that the students regarded her highly and liked her teaching styles and personality. She had also been involved in materials development and online English projects in school along with other teachers and proved that she was a very concerned and hardworking teacher in such contexts. The teacher for the experimental group majored in English at a university and studied TESOL for two and half years in Korea.

Both teachers were given the overview of research and were informed of their roles. The teacher for the control group was asked to teach the students as usual and asked to write a teaching journal to document any thoughts on her class. On the other hand, the teacher for the experimental group was encouraged to use cooperative work as much as possible and asked to do pair and group work in and outside the class even though it was okay to lecture or do some whole class activities. In fact, she came up with the idea of using a web café and conducted her own teaching as she saw fit throughout the semester.

3. Data Collection

The data for this research were collected through a few different methods. First, the two surveys were done in preliminary and post hoc manners. The preliminary survey comprised 36 items under the categories of students’ views on general English program,
cooperative learning, and web-based learning activities. In the meantime, the post-survey consisted of 40 items to investigate the students’ experiences in web-based activities. There were seven open-ended questions in both preliminary and post surveys. However, only those questions which concern the students’ experiences on web-based activity were analyzed.

Second, the researcher asked the teacher in the experimental group to write reflective thoughts or comments either on the note or the web. She was particularly advised to enter anything related to the class such as curricular issues, the use of materials, and classroom activities and student participation in class or on the web. In addition, there were several informal talks with the teachers during the research period in order to keep abreast of what went on in and outside class.

Third, two observations were made for each class, respectively, and each observation lasted for an hour and fifteen minutes. During the observations, field notes were taken rather thoroughly to document major instructional activities and other important comments. Since the observations were done only twice for each class, they were used to triangulate the data from students’ surveys, reflective notes, and focus group interviews.

Fourth, the researcher conducted two focus group interviews for each class with five students who were randomly chosen from the two classes. The focus group interviews were to confirm the accuracy of the data collected from other methods and also to complement the findings from the teacher journal, classroom observations, and the open-ended questions from the survey questionnaires. In other words, the focus group interview provided some important corroboration regarding what the students did and what they thought about the class activities either inside or outside the classroom. The focus group interviews proceeded in a comfortable atmosphere and lasted about an hour for each. It was performed during and after the semester and there were no pre-structured questions. In other words, the research opened up by asking how the class was and what they liked and disliked. Upon such prompts, the students opened up immediately and were rarely interrupted unless more information or some clarifying questions were asked.

Lastly, given the focus of the study on technology in the context of CTL, the web café (http://daum.cafe.com/engtour) opened and maintained by the teacher in the experimental group was examined. The main purpose of the web café was to facilitate the participating students’ learning by negotiating their work, sharing lesson content with peers, and putting relevant work on the web.

4. Data Analysis

The data collected for this research were analyzed in both quantitative and qualitative manners. First, the students’ test scores for both mid-term and finals exams were compared
to examine the effects of differential treatment for both classes.

Second, the survey questionnaires were analyzed using SSPS 10.00 in order to examine the students’ views on CTL and technology use. Excluding demographic information and other open-ended questions, the questions in the preliminary survey were categorized into the three main categories of General English (5 items), Collaborative learning (10 items), and Web-based learning (18 items). However, it should be noted that the preliminary survey was done to see whether the students’ experiences in the two groups were similar and was not analyzed as extensively as the post survey. For the post-survey (see appendix 1), 29 Likert-type questions were grouped into seven major categories as follows: 1) Effect of web activity: (Q. 11, 12, 34-40), 2) Teacher centeredness (Q. 13-14), 3) Student centeredness (Q. 15-17), 4) Level of class participation (Q. 18-21), 5) Level of outside class participation (Q. 22-24, 26), and 6) Use of technology: Q. 25, 28-33.

Third, the qualitative analysis was done for the data from the experimental group in order to investigate different nature of CTL class using a web café. The seven open-ended questions were also coded according to the students’ opinions on the effectiveness, benefits, and shortcomings of a web-based CTL classroom. In addition, the teacher journal, classroom observations, and the focus group interviews were also used to complement the descriptions of the classroom interaction while the content of web-based activities were analyzed for the students’ interaction patterns and lesson content.

VI. RESULTS

1. Effect of Using a Web-based CTL

The students’ entry levels of English language abilities were measured using a short version of commercially available TOEIC test during the first week of the semester. An Independent Samples t-test showed that there was no statistically significant difference between the control group and experimental group ($t=1.49, p=.44$).

<table>
<thead>
<tr>
<th>Test</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>s.d.</th>
<th>d.f.</th>
<th>t</th>
<th>sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>Control</td>
<td>28</td>
<td>234.8</td>
<td>57.08</td>
<td>58</td>
<td>-1.49</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td>Experiment</td>
<td>32</td>
<td>255.1</td>
<td>48.65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Both the mid-term and finals tests were composed of 40 questions, respectively and heavily focused on vocabulary, grammar, and reading comprehension of the units in the
textbook. There were three types of questions such as multiple choice, true or false, and short open-ended questions. Regarding the effects of differential treatments for the control group and experimental group, the independent samples t-tests show that there were no statistically significant differences in the mid-term and finals test results as below:

<table>
<thead>
<tr>
<th>Test</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>s.d.</th>
<th>d.f.</th>
<th>t</th>
<th>sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-term</td>
<td>Control</td>
<td>30</td>
<td>14.8</td>
<td>2.8</td>
<td>60</td>
<td>-.064</td>
<td>.96</td>
</tr>
<tr>
<td></td>
<td>Exp.</td>
<td>32</td>
<td>14.8</td>
<td>2.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finals</td>
<td>Control</td>
<td>30</td>
<td>32.4</td>
<td>9.6</td>
<td>60</td>
<td>2.39</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>Exp.</td>
<td>32</td>
<td>26.3</td>
<td>10.6</td>
<td></td>
<td></td>
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</tbody>
</table>

As shown in Table 2, there were no statistically significant differences in the two test scores among the two groups. However, the mean score of the control group was higher than that of the experimental group in the finals. It was found out that the CTL did not have enough time to prepare the students for these exams which focused mostly on linguistic aspects and reading comprehension while the teacher and students in the control group concentrated on preparing what would be on the tests, especially, before each test.

2. Students’ Views on Web-based CTL

1) Results of Preliminary Survey

The statistical analysis showed that the reliability of the preliminary survey was Cronbach $\alpha = .70$. The independent t-tests showed that there were no statistically significant differences in the two groups except the two categories. Interestingly, the students in the control groups responded that they were more motivated and used computers more.

<table>
<thead>
<tr>
<th>Category</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>s.d.</th>
<th>d.f.</th>
<th>t</th>
<th>sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>Con.</td>
<td>24</td>
<td>2.92</td>
<td>.58</td>
<td>53</td>
<td>.89</td>
<td>.031*</td>
</tr>
<tr>
<td></td>
<td>Exp.</td>
<td>31</td>
<td>2.03</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer use</td>
<td>Con.</td>
<td>24</td>
<td>12.83</td>
<td>3.02</td>
<td>53</td>
<td>.53</td>
<td>.049*</td>
</tr>
<tr>
<td></td>
<td>Exp.</td>
<td>31</td>
<td>12.45</td>
<td>2.32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$

According to the question on the grouping preference (Q. 23), of the data from 24
students (8 male and 16 female), the sixteen students (66.5%) in the control group responded that they preferred working in a mixed group with the same or different levels while two male and six female students wanted to be in the same sex group with either the same or different levels. This may be because the majority of the students were composed of female students or the lack of experiences in group work manifested in their response. However, twenty nine students (96.7%) in the experimental group preferred to be in the mixed group with the same or different levels of students. Only two students responded that they preferred to be in a female only group with different levels.

2) Results of Post Survey

The reliability of the post survey was Cronbach $\alpha=.81$. The results of independent t-tests revealed that there was a statistically significant difference in Teacher centeredness, which indicates that there was less control of the teacher in the experimental group:

<table>
<thead>
<tr>
<th>Category</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>s.d.</th>
<th>d.f.</th>
<th>t</th>
<th>sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher centeredness</td>
<td>Con.</td>
<td>29</td>
<td>6.93</td>
<td>1.87</td>
<td>55</td>
<td>.09</td>
<td>.016*</td>
</tr>
<tr>
<td></td>
<td>Exp.</td>
<td>28</td>
<td>6.89</td>
<td>1.29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$

Regarding the effectiveness of grouping, among the 26 students in the experimental group who responded to this question, only twelve students (46.1%) answered that the mixed group was effective. On the other hand, eight male and six female students thought the same sex group could have been more effective. In sum, it was clear that the students in experimental group felt that the teacher was less in control. However, similar to the analysis of test results, there was no statistically significant difference in the two groups regarding the effect of web activity, student centeredness, levels of participation in and outside class, and the use of technology. However, this result should be interpreted cautiously since the students in the control group may have had different understandings about CTL and technology use. In fact, it was confirmed through the surveys, class observations, and interviews that this class rarely did any cooperative work other than a couple of pair work exercises not to mention using any technology.

The analysis of the seven open-ended questions showed that, whether it be in class or web-based, the students highly regarded the benefits of sharing and preparing the units before lesson. Furthermore, it is sure that there were some concerns about excessive noise and the lack of cooperation from some members. However, it seemed that the students
were cohesive, negotiated what to do in class and online, and frequently interacted to complete various tasks. In addition, the students expressed that they could have done better if the class had proceeded a little bit faster and more active and they had known how to negotiate differences in opinions with less confrontation. These comments obviously suggest that the CTL class should be prepared more carefully to provide more interactive and meaningful activities where students can value others’ opinions while they are not hesitant in presenting their views.

### TABLE 5

<table>
<thead>
<tr>
<th>Effective task</th>
<th>In-class group work</th>
<th>Web-based group work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual discussion (3)</td>
<td>Use of café (7)</td>
<td></td>
</tr>
<tr>
<td>Q &amp; A with members (2)</td>
<td>Online preview (4)</td>
<td></td>
</tr>
<tr>
<td>Preview with members (2)</td>
<td>Use of internet (2)</td>
<td></td>
</tr>
<tr>
<td>Summary of units (1)</td>
<td>Sharing of content (1)</td>
<td></td>
</tr>
<tr>
<td>Making portfolio (1)</td>
<td>Online upload of summary (1)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Group cooperation (4)</td>
<td>Less constraints for time and meeting (1)</td>
</tr>
<tr>
<td>Close peer relationships (4)</td>
<td>Preparation of learning materials (1)</td>
</tr>
<tr>
<td>Preview before class (3)</td>
<td>Study unprepared parts (1)</td>
</tr>
<tr>
<td>Summary &amp; information exchange (2)</td>
<td>Summary of key points (1)</td>
</tr>
<tr>
<td>Asking questions (1)</td>
<td>Information exchange (1)</td>
</tr>
<tr>
<td>Easy understanding of content (1)</td>
<td>Face-to-face meeting (1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limitations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Too noisy (6)</td>
<td>Lack of participation by some members (5)</td>
</tr>
<tr>
<td>Lack of participation by some members (4)</td>
<td>Clash of opinions among members (1)</td>
</tr>
<tr>
<td>Time management for meeting (1)</td>
<td>Frequent meetings (1)</td>
</tr>
<tr>
<td>Too many in group (1)</td>
<td>Too time-consuming and stressful (1)</td>
</tr>
</tbody>
</table>

NOTE: The numbers in parentheses are the frequencies of the student answers.

3. Instructional Characteristics of a Web-based CTL

In this part, some recurring patterns of this particular web-based CTL class were identified based on the content analysis of the web entries during the semester. In addition, the classroom observations, focus group interviews, and the teacher reflection were triangulated in order to highlight some key characteristics of the CTL class based on the understanding that this research focuses more on interaction and the use of technology.

1) Student-Centered Cooperation in Web-based CTL

According to the class observations, the teacher journal, and the student interviews, there was little lecture in the web-based CTL classroom. Most class time was spent in sharing each group’s prepared lesson materials. Thus, the students in each group interacted both in
class and on the café in order to organize the parts they prepared or to share the lesson materials in group or with other groups. During the class observations, the group members discussed what and how to organize their work in and outside class and shared what they prepared within and between groups. That is, each group compared its work with others’ to complement insufficient content in class. In other words, using the materials posted on the web, all the units were covered in a whole class format where each group presented what they had prepared and in a small group context where they compared and shared their work with those in other groups. Accordingly, this particular class was very lively in that the teacher often provided group work time so that the students could negotiate what to put on the web café and see what others did in class. In the meantime, the teacher went to each group to check their work and respond to any question they had. Then, each group took turns in presenting what they prepared in class followed by the teacher’s comments on the content of the unit or elaborations on specific parts of the lessons. In addition, the students did the exercise questions in class. In case they could not completely finish them, the remaining questions were assigned as homework.

The characteristics described above are quite different from the compared control group. This class was extremely teacher-centered and the students mostly remained quiet and occasionally followed what the teacher required. The teacher provided detailed explanations of key points and translation of the units while the students were often asked to memorize what they learned and were also given frequent dictation quizzes. For the listening part, the teacher played the tape twice and then went on to solve the exercise questions with detailed explanations if needed. Therefore, most of the class time was spent for the translation of the units and she asked very few questions to students. In addition, writing was done minimally just to complete the given activity. During the observations, it was noted that the teacher rarely gave the students opportunities to do pair or group work. The focus group interview also confirmed that there was minimal interaction between the teacher and students and among students. Accordingly, the teacher in the control group followed the textbook exactly and used more of a grammar-translation method for reading comprehension. In her journal, she even wrote that there were too many students, which prevented her from keeping up with the lessons as planned and assessing the student’s progress on an ongoing basis. Furthermore, she even asserted that she had to lead the class all the time because there were so many students with little motivation and confidence.

2) Parallel Patterns of Lesson Content on Web Café

In order to encourage the students to work in groups, the teacher in the experimental group put the students into four groups and guided them to work together throughout the semester. She also opened a web café (http://cafe.daum.net/engtour) at the beginning of the
semester so that the students could interact both in the classroom and also on the web. The menu of the web cafe was composed of a bulletin board, Pop songs and Translations, Questions of the English Class, Peer Group 1, 2, 3, 4, English Class Materials, Talk! Talk!, and Bulletin Board for Anonymous. The following shows the opening page of this café:

![FIGURE 1
The Opening Page of the Web Café](image)

According to the examination of the content of the web cafe on the main group bulletin board, some parallel patterns among the groups occurred as Table 4 shows:

<table>
<thead>
<tr>
<th>Group no.</th>
<th>Introducing members</th>
<th>Unit preparation</th>
<th>Translation assignment</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>11</td>
<td>11</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Group 2</td>
<td>10</td>
<td>15</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Group 3</td>
<td>8</td>
<td>9</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Group 4</td>
<td>5</td>
<td>12</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>47</td>
<td>25</td>
<td>4</td>
</tr>
</tbody>
</table>

After the students’ self-introductions, there were forty seven entries covering the units they studied. There was one web translation assignment for which twenty five students did on the web. So it appeared that the groups utilized the web to share the content of units
predominantly. In fact, most uploaded entries were concerned with vocabulary, grammar, translation of main text, sentence patterns than any other area in English. In other words, the students posted and shared their assigned work or translation following the organization of the textbook and there were very few entries not related to the lesson content. Thus, the content of web café posting followed the textbook format such as vocabulary, grammar, and the translation of the main reading, and language check. In addition, some students posted rather elaborate explanations of specific grammar points. In fact, the analysis of all the postings from four groups showed that almost all postings were parallel and showed little variations. In short, there were very few entries not related the lesson content on the group bulletin board. However, according to the teacher interview and journal, it was revealed that the teacher in the experimental group said she explicitly guided the groups to summarize each unit in terms of vocabulary, grammar, translation of reading, language check, and the assignment required for each group, if any.

3) Superficial Use of the Menu on Web Café

The teacher in the experimental group mentioned that she created a few menu items on the café to provide more opportunities for students to interact. For example, the menu of ‘Pop songs and Translation’ was offered to provide some flexibility and extra chance for students to be exposed to English. In fact, both the teacher and students uploaded music files and translation of lyrics of the song on the board for Pop songs and Translations. There were about 30 songs on this board and the teacher utilized one of these songs titled “Sorry seems to be the hardest word” after the mid-term to teach the lyrics with which the teacher made up a cloze test for the listening and comprehension check-up. However, the songs translated and posted were mainly from other Internet sources rather than those of the students.

The Talk! Talk! Board was meant to provide space to share personal opinions freely. On the board, both the teacher and the students entered 19 entries during the semester. The teacher wrote 13 entries and her comments were about the students’ homework, some useful study information regarding the units, and a few encouragement entries for the mid-term. However, the students’ entries were quite limited dealing with the status upgrading for the café and other logistical issues such as asking for study materials. However, it was interesting that one student posted a Korean newspaper article under the title of “we seem to be happier than this girl”. The article reported a story of the underprivileged middle school student who committed a suicide due to the family break-up and economic strains. In addition, there were twelve more entries after the class was over on this board and most of those entries were rather casual comments to express how hard the course was or how thankful they were to the teacher and group members.
On the Bulletin Board for Anonymous, there were 21 entries but they were rather all casual greetings or other miscellaneous comments. The teacher offered this board to provide an opportunity for students to freely exchange their opinions or ideas and, in fact, she even encouraged them to use this board more in one of the entries on the Talk! Talk! Board. However, the students seemed to be at the level of exchanging some superficial comments instead of establishing more solidarity with other students. In addition, the teacher also noted that the students did not use frequently either Questions of the English Class or English Class Materials even though they purported to be the place for them to post their questions in the units or share relevant class materials.

4) Innate Constraints for Collaborative Interactivity

Both the teacher and students in a CTL class dedicated their time and energy in order to engage in cooperative group work to prepare and present their work both in class and on the café. However, there were a few constraints in this CTL class such as initial difficulty of adjusting to a CTL class, limited usefulness of CTL activities, disruptive classroom atmosphere, and the issues of nonparticipation and time and efforts in doing the work.

First, the focus group interviews revealed that the students in the CTL class stated that they had difficulty in conducting the group assignments at first mainly due to the lack of experiences in group work using the web café. So they first relied on one or two students to complete the assignments. Furthermore, due to the large group size, some students did not participated in group work actively at first. Thus, not having any previous experience in a web-based group work, the students had hard time finishing the tasks in time, especially, at the beginning of the semester. However, as the semester progressed, the students said they used the Internet messenger such as MS messenger or DAUM messenger to negotiate what to do and how to do the work. In doing so, they were able not only to look into their work together but also compare their work with other groups’ before and after class. In her journal, the teacher in the experimental group also wrote that the students seemed to participate and interact with peers more despite the curricular constraints such as using the textbook, taking exams, and more demanding work outside the classroom. In other words, as the semester moved on, most of the students were involved in preparing for lesson content in order to put their work on the web café and used it in and outside class and also for exams.

Second, despite the students’ gradual adjustment to the CTL class, the similarity in the content and their familiarity of classroom routines seem to produce some adverse consequences. In other words, many students paid little attention to other groups’ work unless someone from their own group presented. Furthermore, the students said they benefited from each group’s web postings, its usefulness was limited to both mid-term
exam and finals. The teacher’s reflective journals and students interviews also revealed that the students mostly cooperated and used the web café to complete the work. In fact, the students may have taken using the web café as an extra work or required assignment even though the researcher and teacher meant it to be another space for meaningful interaction to engage in diverse academic interaction according to their needs and interests.

Third, as typical with any group work, there were always problems of disruptive learning atmosphere and non-participation by some group members. That is, when given the group activity time to review and compare their work with others, the class became noisier for better or worse. While some students eagerly participated in the cooperative activities, some students were obviously off-task and engaged in more social talk even though the teacher moved about the classroom monitoring students. Furthermore, some students in the groups brought the issue of equal amount work and complained that their member did not contribute to the work equally in class and/or outside the class.

Lastly, both the teacher journal and interviews showed that the teacher rarely had enough time to go over lesson content in detail and had to rush through the units to review some key points before the exams to make sure the students knew important points in the units. In addition, during the focus group interviews, the three students from the experimental class said they would consider positively taking another similar class but the other two were hesitant in doing so stating that they experienced frequent communication difficulties and spent more time in preparing group work presentation and the content for the web.

V. DISCUSSION AND CONCLUSION

This study presented the results of the comparison between the traditional class and CTL classes. There were no statistically significant differences in the students’ performance or their views on cooperative work and technology use. However, it should also be noted that there are some limitations in this study. First, even though the treatment was randomly assigned to each class, the sample subjects were from two intact classes. Therefore, the results of the current study should not be generalized to other contexts. Furthermore, as innate in the classroom-based research, the sample size for this study is small and more rigorous research with a larger sample will certainly yield different results. In addition, there was an initial concern regarding to what extent the teacher in the experimental group should be trained and guided for CTL. It was decided that the researcher’s excessive intervention may influence the teacher in certain ways, which is not ideal for securing more natural data. Therefore, more explicit instructions and remedial interventions during the research would have produced different results. Despite these limitations, the analysis of
qualitative data shed some important lights in using CTL and technology in the EFL context. That is, even though many believe that CTL and technology are necessary and help students engage in more interaction, there seem to be many pending issues to investigate.

First, whether it be a traditional classroom or a web-based CTL, the foci in both classes seemed to revolve around vocabulary and grammar lesson and reading comprehension following the format of the textbook. Even on the café in the CTL class, each group mostly focused on linguistic aspects of English and cooperated to complete the given assignment. Accordingly, despite the use of CTL and a web café, the teacher’s efforts to provide more learner-centered activities were limited because of the mandated textbook and most instructional time was used to repeat what they did on the café. Accordingly, even though other researchers presented that students can experience more communicative interaction using target language and meaningful learning using various language and learning skills, the use of cooperative work both in class and on the café did not result in many benefits as intended.

Second, in this class, the assignment of preparing the summaries for each unit and presenting them in class and on the café may have prevented the students from engaging in dynamic interaction. In fact, both the teacher and students continued to compare what they had done with others’. Accordingly, this particular class became too routinized to the extent that the students seemed to understand the web-based activity or sharing time in class as a required assignment rather than an opportunity to build their own learning community. In other words, the students did not become the owner of their learning but considered the group work and the use of the web café as another add-on work. In fact, they cooperated to complete the required work in class and on the café and did not use diverse interaction strategies or media to delineate and produce their own knowledge about the topics.

Third, the students in the CTL class at first experienced some difficulty in finding time outside classroom and assigning the work to each member. The students attested that they had difficulty in adjusting to a cooperative classroom atmosphere first due to the time constraints for meeting outside the class and lack of knowledge on what to do. However, as the semester progressed, they utilized the lesson materials on the web-café for classroom activities and summative exams. It was also noted that the web-based CTL class had less teacher control and provided many opportunities to use email, the Internet, chatting, and web café outside the classroom. However, it also appears the teacher and students did not engaged in real meaningful collaborative work in class and on the web café. Furthermore, there were some concerns for those who did not participate well and the disruptive classroom atmosphere due to off-tasks such as doing own work or social talk.

Accordingly, based on these results, five important implications and suggestions are made for those who utilize the collaborative pedagogy in and outside class. First, on a
practical level, the teacher should investigate students past experiences in cooperative learning and should organize the groups and activities well. That is, the teacher needs to understand the lack of time and participation in a CTL class as well as the dynamic nature of interaction in and outside the class. In other words, providing more concrete cooperative framework and roles for each group member by considering the students’ burden in doing more autonomous group and web-based work seems to be a priori to engage students in truly collaborative learning. In so doing, it may be possible for both teachers and students to be free from teaching and learning fragmented sets of language knowledge and skills. In other words, when students are pressed for time to complete the task, students feel extra burden in doing cooperative work using technology and, eventually, co-opt collaborative nature of learning for cooperative completion of learning tasks.

Second, English teachers should learn and think about how they can utilize cooperative teaching according to specific instructional goals and students’ needs and interests. If not, students may engage in quasi-interaction to complete the task given. Thus, in order to ensure interactivity and meaningfulness in the context of cooperative language classroom, it may be ideal for teachers not to predetermine what tasks should be done or to mandate certain curriculums without considering the context of specific teaching and learning under the pretext of CTL. Furthermore, the teachers should think through their roles and be an authority without any authoritarian attitude and understand that students need to be guided to become owners of their own learning.

Third, the issues of students’ accountability and responsibility in CTL need to be carefully addressed for more meaningful collaboration in class. This may be more so when CTL is done not only in class but also in the cyber space where the latter functions a preparatory condition for the former in conducting instructional activities as shown in this study. More specifically, students can be grouped according to their prior experiences in cooperative learning, levels of language proficiency, learning styles, or their interests and needs. However, it should be kept in mind that establishing the positive classroom atmosphere is difficult without constant observations of student interaction, diverse grouping strategies, and provision of interesting and meaningful activities. Thus, the teacher needs to actively participate in each phase of cooperative work to make sure all participate and also encourage less active students. Furthermore, given that the dynamics of group members is a key factor, the teacher should be wary that excessive intimacy brings congeniality instead of collaboration while the lack of cohesiveness brings adverse effects on the level of performance.

Fourth, it may be that it is difficult to integrate technology with CTL unless the teacher has substantial experiences in both. In other words, despite the stated benefits of CTL and technology in language teaching, the teacher probably should have much experience in both areas since s/he needs to be knowledgeable on various areas such as individual
learners’ difference, effective group work strategies, task constructions and assignment, and abilities to use many technological tools. Accordingly, there should be systemic efforts to develop well-designed and practical teacher training programs which are geared to help teachers utilize various pedagogical theories and strategies related to CTL. Accordingly, given that the traditional transmission model of teaching may not be an ideal context for CTL, it is necessary for teachers to consider and learn how to use more sociocultural approaches of teaching such as content-based (CBLT), project-based (PBLT) or inquiry-based language teaching (IBLT; Kiwan Sung, 2004) or activity-based language teaching (Dixon-Krauss, 1995). In doing so, teachers can meet students’ diverse needs and interests and provide more opportunities for students to engage meaningfully in their own tasks and activities together and use language and technology in performing various learning activities in class or online.

Lastly, English teachers should be trained and given opportunities to consider pedagogical utilities of technology. In other words, given that students do not learn everything only in class anymore, teachers need to provide different contexts of learning by using pedagogical theories and current technology development. Accordingly, more CTL-based pedagogical models using technology such as ICT or CMC should be developed and implemented in order to integrate some key language learning theories such as CLT (Jeong-Ryeol Kim, 2003). However, as shown in this study, even though the use of a simple tool such as a web café does not necessarily bring about meaningful learning all the time, teachers should investigate pedagogical effectiveness carefully in using computers, the Internet, and other multimedia tools in teaching English. In addition, despite the development of many synchronous and asynchronous language programs in the context of distance or cyber education or even in the form of e-learning or u-learning, there are many pending issues in the use of technology in ELT (e.g., lack of facilities and teacher and staff training, blind trust or over-reliance on technology, the use of technology without clear pedagogical goals, and new hierarchy based on individual teachers’ levels of sophistication in technology; Salaberry, 2001). Accordingly, it is of critical importance for English teachers to understand that the use of technology has some inherent dangers. Some teachers and students may mistakenly consider it as a solve-it-all tool or others a cumbersome and time-consuming tool for this already complicated world of teaching. Therefore, mindful teachers of English should always investigate way to use technology pedagogically so that technology is not using them (Postman, 1992, 1995).

In sum, running cooperative classroom is more than having students cooperate and share some specific linguistic knowledge and skills learned. Even though sharing what they did is important both in class and online contexts (Sangmin Lee, 2004), meaningful cooperation does not occur unless students assume full responsibility, take a risk in learning necessary knowledge and skills, and negotiate their understanding with their peers using diverse
materials in and outside class. In fact, collaboration is not what someone can or should do in class but requires both the teacher and students to share pedagogical power to be more creative and critical in constructing their own process of sharing, negotiating, and contesting various types of sociocultural knowledge and issues using language and discursive practices they can manage and are learning to manage. Accordingly, despite rather a long history of using pair work and group work in CLT, task-based (TBLT) or content-based language teaching (CBLT), language teachers need to understand that true collaboration may not possible unless students perceive themselves as having authority to negotiate and construct their own learning. It may be high time that using collaborative work in classroom should be thought of in the context of non-competition based and non-foundational teaching where the teacher and students interact at a more equal status to establish academic solidarity to negotiate and accomplish both specific and broader objectives of language teaching and learning.

REFERENCES


APPENDIX

Survey on General English

This questionnaire is to examine your experiences and opinions in the general English class for this semester. Please read each question carefully and mark your answer.

3. Age: _______________________  4. Gender: Male ______ Female_______
5. Student No. ___________________  6. Name (optional): _________________
7. Scores in TOEIC, TOEFL, TEPS, if available: _______________________________
8. What is the title of the course you have taken? _______________________________
9. What was the focus of the study in your class, Please circle all.
   A. Vocabulary  B. Grammar  C. Listening  D. Speaking
   E. Reading  F. Writing  G. Others_____________________
10. How was the level of the class in comparison to your language ability?
   A. too difficult  B. difficult  C. appropriate
   D. easy  E. too easy
11. I think the English class I just took helped improve my English ability.
   A. strongly disagree  B. disagree  C. uncertain  D. agree  E. strongly agree
12. This general English course is suitable for my English proficiency level.
   A. strongly disagree  B. disagree  C. uncertain  D. agree  E. strongly agree
13. In my class, the teacher mostly lectured.
   A. strongly disagree  B. disagree  C. uncertain  D. agree  E. strongly agree
14. In my class, the teacher usually explained or translated the text.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
15. There was peer activity time in my class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
16. There were always peer activities in my class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
17. There were group activities all the time in my class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
18. I participated actively in my English class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
19. My Classmates actively participated in English class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
20. I actively participated in both pair and group activities in English class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
21. My classmates actively participated in both pair and group activities in English class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
22. I was able to engage in both pair and group activities outside the classroom.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
23. I actively participated in both pair and group activities outside the English class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
24. My classmates actively participated in both pair and group activities outside the classroom.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
25. The Internet or computers were used in English class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
26. The Internet or computers were used outside the class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
27. Please circle the equipment used during the English class.
   1) T.V.  2) Radio  3) Cassette  4) Videotape  5) CD-ROM
   6) Internet  7) Web board  8) Others ___________________
28. I have used the Internet or computers to study English.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
29. I needed to use email to study English in this class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
30. I had to use the Internet or website to study in this class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
31. I had to engage in online activities to study in this class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
32. I exchanged opinions on English lesson content with peers using email or instructional web boards.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
33. I used the discussion room or chatting in English class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
34. I’m satisfied with group work done in class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
35. I will take another English course if it is going to be taught in the same manner.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
36. I made an effort not to be absent due to the pair or group work in class.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
37. The pair and group work in/outside this class will help improve my grade this semester.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
38. The pair and group work in/outside this class will help improve my English overall.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
39. The pair work and group work in/outside this class will help me more interested in English.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
40. The pair work and group work in this class will help create good classroom atmosphere and
    strengthen relationships among members.
   A. strongly disagree   B. disagree   C. uncertain   D. agree   E. strongly agree
41. Which group do you think participated in group work more actively?
   1) Groups with male members only          2) Groups with female members only
   3) Groups with male and female members
42. What activities you have done in pair or group work were effective in your opinion?
43. What Internet-/computer-based activities in pair or group were effective in your opinion?
44. What are the strong points in pair or group work done in English class?
45. What are the weak points in pair or group work done in English class?
46. What are the strong points in pair or group work done outside the English class?
47. What are the weak points in pair or group work done outside the English class?
48. What are some points you desire for the English class you have taken?

Applicable level: college level
Key words: cooperative teaching, collaborative learning, web-based teaching & learning

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