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# ADVANTAGES AND DISADVANTAGES FROM OPPORTUNTIES IN CALL CLASSROOM ENVIRONMENTS

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#### Abstract

This qualitative study explores two K-12 computer assisted language learning (CALL) classroom environments in Korea. The data analysis exposes many advantages and disadvantages from the opportunities provided in the CALL classroom environments. Also, this study discusses technology integration in the CALL classroom environments and changing teachers' roles. In the light of these findings, some implications are presented.

#### **Introduction**

In a classroom learning environment, students and teachers interact with each other and use a variety of tools and informational resources in their pursuit of learning activities (Wilson, 1996). Although the attributes of space are important, classroom environments are not limited to its physical space. The classroom environment is the interaction among space and activities that impact student learning. Teachers and students change, adapt, and impact the environment in many different ways.

There has been a gradual shift in educational literatures that is taking much of the focus away from teaching and redirecting it instead towards learning. Along with this shift in thinking, there has recently emerged a reinterest in the notion of classroom learning environments. Seminal studies (e.g., Fraser, 1986, 1987; Fraser & Walberg, 1991; Wilson, 1996) claim that learning can be fully understood only when it is examined within the context in which it occurs, and the relationships between learning and student perceptions of the classroom environment are generally positive. In other words, classroom environments greatly affect learning. However, while there are many current theoretical papers, there is relatively little empirical research on classroom environments. Therefore, it is important to explore classroom environments to understand experiences that lead to learning.

Furthermore, language classroom environments have rapidly integrated information and communication technology (ICT). During the late 1990s, the question of technology use gradually changed from "Should the computer be used in language teaching?" to "How can the computer best be used in language teaching?" (Chapelle, 2001, p.1). This shift implied that technology was not optional in language classrooms any more. In Warschauer's (1999) ethnographic research, students in technology-enhanced, language-learning classrooms acquired both language and technology skills at the same time. He indicated that students viewed technology not as a secondary or optional tool, but as a critical tool that added value to language education.

With this trend, research on language learning has increasingly called attention to classroom environments. For example, some researchers investigate individual components of the classroom contexts in which language learning occurs (e.g., Warschauer, 2002). In this

regard, many researchers (e.g., Basena & Jamieson, 1996; Warschauer, 2000) found that language learning environments involving autonomous learning, collaborative learning, and the development and practice of language learning strategies motivate students to continue learning inside and outside the classroom. Also, some researchers examine classroom language to investigate the quality of the discourse that learners take part in through their oral and written texts (e.g., Bardovi-Harlig, 1987; Long, 1996). In these research studies, the focus of the research has been on the quality of the input to learners, their interactions, and their output (Gass & Lakshmanan, 1991). For example, Krashen's (1985) hypothesis about the value of "comprehensible input," and Long's (1996) research demonstrating the importance of interaction have attempted to understand the input and conversational interaction that learners are exposed to during second language instruction. Discussions of learners' sensitivity to input features have been a common theme in the field of SLA. Bardovi-Harlig (1997) claimed that input frequency can override the assumed difficulty of learning marked features, and Gass and Lakshmanan (1991) found a correlation between (ungrammatical) input and output data. The goal was to identify the environmental conditions under which ideal input and interactions take place (Chapelle, 1997).

Additionally, researchers have looked at language-learning tasks as a component of language learning environments (e.g., Crookes, 1989; Davis & Chang, 1994). Without denying the importance of linguistic outcomes, researchers placed greater emphasis on the type and amount of target language use and interaction that learners engaged in to provide evidence for the quality of classroom instruction. Consequently, these studies describe the language learning atmosphere and interaction in language classrooms. Mostly they found the following: "Time spent on learner talk is better than time spent on teacher talk; learners should have the opportunity to comprehend a variety of functions in the target language; learners should engage in communicative exchanges in the target language" (Chapelle, 1997, p.27). We can note that the researchers have tried to understand the learning context by avoiding studying simple cause and effect relationships.

In short, all research cited above has been investigating the environmental elements of language learning, rather than only focusing on the linguistic elements or learning outcomes of treatments. However, there is little research that discusses more than one environmental element. Although most studies investigated environmental elements rather than discrete skills, language learning cannot be described by only one environmental component. For example, motivation does not occur alone. It has complex connections with other components. Therefore, the exploration of language classroom environments should focus on multiple components for optimal language learning.

Besides, to date, the majority of research studies in the fields of SLA and CALL have focused on the benefits and/or possibilities of utilizing specific computer applications in language classrooms. For example, the evaluation of technology used in the language classroom often has looked at a program's characteristics such as fancy graphics, sounds, or special effects, rather than examining the pedagogy, methodology, and structures that create the foundation for the effective use of the technology. More recently, research has focused primarily on students' or teachers' technological preferences rather than on the effectiveness of the use of technology in language learning environments. In other words, rather than conducting rigorous research on the effectiveness of CALL classroom environments to understand students' and teachers' experiences there, many investigations focused on the technology itself or reported anecdotally on its use (Lui, Moore, Graham, & Lee, 2002).

Due to inattention regarding the central role of learning opportunities and the corresponding influence on student learning, the technocentric approach to the evaluation of the effectiveness of CALL has proven unsatisfactory (Doughty, 1987). Therefore, much of the CALL literature (Chapelle, 1997, 1998; Doughty, 1991; Salaberry 1996, 2000; Salomon 1991; Warchauer, 2000, 2002) highlights the limitations of current CALL research and stresses the importance of examining language learning environments rather than the technology itself. To clarify the effectiveness of the technology, it is necessary to evaluate learning environments based on empirical observations. More importantly, it is imperative to include multiple environmental constructs when evaluating language learning. However, there is still little research that discusses language-learning environments with more than one environmental construct.

Salomon (1997) points out that effective research on technology in classrooms should encompass each and every aspect of the classroom with the reflection on social climates rather than any single aspect. He emphasizes that the focus of research on technology in classrooms should pertain to two highly interrelated entities—the individual and the learning environment because what we really want to study is the changes in individuals within a learning environmental context that changes as well. Sheigold (1987) argues the necessity of considering the interaction between technology and learning environments that surround them due to the multiplicity of complex interactions in language classroom environments. Therefore, to understand the impact of technology in language learning, we must examine language classroom environments and investigate what extra benefit that students experience or what students miss out on the opportunities in the CALL classroom environments.

#### The Study

As discussed above, we need broad empirical research of how the technology used in classrooms affects the language-learning environment and what changes are experienced in language classrooms with technology. Therefore, the purpose of this study was to explore opportunities that teachers create to help EFL students learning English in CALL classroom environments. To achieve the purpose of this study, two main research questions were considered: (1) how and why do they use technology in CALL classrooms? and (2) what are the advantages and disadvantages from opportunities in CALL environments?

To conduct this study, the sites of this study were one elementary and one middle school in Korea. One English classroom from each of two different schools was selected: a 5<sup>th</sup> grade EFL classroom and an 8<sup>th</sup> grade EFL classroom. The selected schools were networked, and the EFL teachers regularly used technology as a primary instructional tool in their language classrooms. Additionally, all students learned English as a foreign language as a part of their regular curriculum and were exposed to CALL classroom environments.

A qualitative study was conducted to obtain a narrative, thick, descriptive interpretation of advantages and disadvantages from opportunities in two CALL classroom environments. A qualitative methodology was selected for this study because, rather than aiming to test research hypotheses, the purpose of this study is to explore natural classroom phenomenon through fieldwork. In other words, I wanted to generate data rich in detail concerning the languagelearning environments. Thick descriptions of CALL environments provide clear understandings of the learning environments. In other words, I wanted to explore the CALL environments by illustrating what was going on in the classrooms and what teachers and students experienced rather than comparing which technological application was more effective or evaluating which one was appropriate to teach discrete skills. Therefore, qualitative research methodologies were appropriate and supportive to describe the language learning environments.

To enhance the integrity and trustworthiness of the data collected in the aforementioned classrooms, the process of triangulation was employed. Specifically, semi-structured interviews were used to gain information from the two teachers and ten students involved in the study. In addition, observations of learning environments with technology and a collection of documents were employed to facilitate the triangulation process. The interviews were conducted individually and tape-recorded. For each observation, a checklist with eight conditions proposed by Egbert (1993) was used with a complete field notes description. Documents included lesson plans, students' products, textbooks, and handouts.

During the process of data analysis, tape-recorded interviews, observational notes, and documents were transcribed, organized, and read to reveal relevant categories. My main categorizing strategy in the qualitative research was coding. For initial coding, I looked for what I could define and discover in the data, based on the research questions. Field notes and transcriptions were coded with colored pencils to identify different themes. After the initial coding, I identified meaning units with the same code and put themes together into excerpt files by cutting and pasting with the aid of a computer. I put all of this information together into an overall coherent framework. Eventually, the data were analyzed to answer the research questions in the overall framework.

#### CALL Classrooms

# The 5<sup>th</sup> Grade CALL Classroom

Every English class in Korean elementary schools uses the same textbook, which was developed by the Ministry of Education (MOE). The textbook is accompanied by software and a teacher's guidebook. The software, written in English, mirrors the content of the textbook; characters and activities in the textbook appear in the software and in the same order. The teacher's guidebook includes class objectives, materials, and instructions for each lesson in detail.

During the two months of data collection, the 5<sup>th</sup> grade teacher finished three complete lessons from the text. During the term, the class was sometimes cancelled due to teachers' seminars and school events. The teacher adapted a lesson plan by the MOE for each lesson to understand what she needed to teach. As shown in Figure 1, each lesson plan was comprised of whole lesson goals, objectives in each area (listening, speaking, reading, and writing), functions of communication and language rule, vocabulary words, activities, and evaluations. To finish one lesson, it usually took two weeks (four class hours).

Lesson 12 This is a Bedroom				
Lesson Goal	Students will describe their house. In this lesson, students will learn useful			
	expressions and vocabulary words to introduce their houses.			
Objectives	Listening	Students can listen and understand about house structure in		
-		English		
	Speaking	Students can speak about the house structure		
	Reading	Students can read short words relating to the theme		
		"house" (bedroom, kitchen, living room, bathroom,		
		backyard, house)		

	Writing	3	Stude house	nts can write simpl e. (Table, Desk, Ch	e vocabulary words of objects in air)
Function of communication	Function commu	Functions of Descr communication		ription	
and language rule	Langua	age rule This is Where		e is	 ?
Vocabulary	Backyard, bathroom, bedroom, cook, future, house, kitchen, living room, spoon, dish				
	Class	Pages		Focus	Activity
Plans	1	p.96-97		Look and Listen Listen and Repeat Let's play	<ul> <li>Review with picture cards</li> <li>Listen and repeat after software</li> <li>Guessing game</li> </ul>
	2	p.98-99		Look and Speak Listen and Repeat Let's Chant Let's Play	<ul> <li>Listen and speak with software</li> <li>Chant "This is a Living Room"</li> <li>House game</li> </ul>
	3	p.100-10	1	Let's read Let's Write Let's Play	<ul><li>Read and write the words</li><li>Game</li></ul>
	4	P102-103	3	Activity Review	<ul> <li>Students' presentation about their houses</li> <li>Review</li> </ul>
Evaluation & Notice	<ul> <li>Students need to understand the differences between our house and houses in other countries.</li> <li>Students' presentations of "my house" will be evaluated.</li> </ul>				

<u>Figure 1</u>. A lesson plan developed by MOE and included in the teacher's guidebook. It explains the goals and plans for the lesson (translated to English).

Before the students came to the classroom, the teacher set up her computer and projected the lesson onto a big screen television, and the students' computer monitors. She then looked around the classroom to make sure all the computer monitors were working. Also, she attached all picture cards that would be used in the class to the blackboard. She used the Internet to search for games and other useful materials for the classroom. She usually visited the MOE sites to download materials and share her ideas. The picture cards were from the textbook or the Internet and portrayed various situations or objects in the lesson.

When her students came to the classroom, the teacher always spent about seven minutes reviewing what the students had learned during the last class in both English and Korean. Even though the students had their own textbook, they usually did not carry it when they came to class because they looked at the big screen television or their own monitors instead of looking at their books. To teach a lesson, the teacher usually used software, the Internet, and picture cards. During the class, the students did various activities such as role-plays, games, group work, and individual presentations. The students usually knew what they needed to do and what would do next because the teacher always followed a similar format and order for each lesson. They also had various assignments such as writing vocabulary words, preparing presentations, and making

class materials. The teacher assigned each student to a seat and placed students with different levels of English together so that classmates could help each other practice what they learned or do assignments.

The 5<sup>th</sup> grade class focused mainly on speaking and listening. The MOE prohibits teaching grammar, reading and writing at this level to encourage students to learn English. However, the teacher sometimes explained simple grammar rules because she believed that it was helpful for students to understand the patterns. The class was energetic and noisy because the students moved around to dance, chant, sing, and act. The teacher evaluated her students based on her observations rather than paper tests because the MOE prohibits any written assessment in case it would have a negative impact on students' interest in learning English.

<u>The 8<sup>th</sup> Grade CALL Classroom</u> Unlike the 5<sup>th</sup> grade integrated textbook, the content of English textbooks in Korean middle schools varies. Private publishers make the textbooks, and the school principal of each school selects a textbook for the school. Publishers provide software with their textbooks. The class mainly uses the software that mirrored the contents of the textbook.

Before the class started, one student hooked up cables to be ready for the teacher's notebook computer. The teacher came to the class with the notebook computer, not with the textbook. Unlike the 5<sup>th</sup> grade classroom, while the 8<sup>th</sup> grade teacher did not carry the textbook, the students always used their textbooks as workbooks to take notes during the lecture and to write answers for questions from the software.

After a short greeting, the teacher projected his computer screen onto a big screen television. When a new lesson was started, the teacher asked his students to guess what the lesson would be about and asked some questions related to the lesson. During the class, the students wrote down important notes or expressions from the teacher and the software in their textbooks. The students usually stayed at their desks and did not perform any group project during the class because it required a lot of time and the teacher needed to finish certain lessons arranged by the MOE so that the students would be ready for the national English exams that are taken twice each semester. During the observation period, the 8<sup>th</sup> graders finished two complete lessons. The teacher adapted a lesson plan by the MOE for each lesson (see Figure 2 for a lesson plan). The students practiced listening, speaking, reading and writing with the software and textbook. In the listening section, the students warmed up by responding to the teacher's personal experiences related to the content. After that, they listened to a situation with the software and marked their answers to questions from the software in the book. The students and the teacher compared their answers. The listening questions had various patterns such as matching, short answers, drawing, a bingo game, puzzles, and multiple choices.

In the speaking section, the students listened to a situation and practiced with partners. Also, they composed a dialogue using given expressions. In the reading section, the students read articles that were related to the lesson and discussed them with the teacher. In the writing section, the students wrote answers to questions or filled blanks. Sometimes, they needed to write essays that related to the lessons. Between and after these sections, the teacher assigned his students to create some projects related to the lessons as homework.

The teacher visited the public and local MOE Web sites to share his ideas and get materials for his class. He also managed his own Web site. He always updated the lessons so that students could access the class lessons any time. His Web site was composed of a bulletin board, links, pictures, assignments, and supplemental materials. On the bulletin board, the students

could post their questions and reply to other classmates' or the teacher's questions any time. In the picture site, the teacher posted pictures of his family and students. In the assignment site, the students could submit their own assignments through the web site or by email.

Lesson	Lesson 8 I'd Like a Cheeseburger p. 147-149		p. 147-149	
Goals	1. Students can guess the content of lesson 8 based on their			
	experiences			
	2.	2. Students can understand the conversation about ordering in the		
	fast food restaurant			
Tools	Software, fast-food restaurant advertising posters, pictures, textbook			
Steps				
Opening:	1.	Share experiences about fast-food rest	aurants	
Guess what?	2.	Discuss the content with the picture of	"Guess what " on page	
(10 minutes)		147		
Development:	1.	Look at the picture on page 148		
Let's listen	2.	2. Guess the situation		
(30 minutes)	3.	3. Listen to dialogues twice		
	4.	4. Ask questions to make sure that students understand the dialogue		
	5.	Respond to questions from software al	bout the dialogues	
	6.	Explain main expression and idiom		
	7.	Review the dialogues		
	8.	Teach pronunciations		
Sum-up	1.	Summarize useful expressions and voo	cabulary	
(5minutes)				

Figure 2. An 8<sup>th</sup> grade lesson plan. The MOE designed a lesson plan for each class to complete a lesson.

As homework, the students needed to make projects and to make conversation dialogues. All these assignments needed to be presented in the classroom. To do these assignments, the students usually used the Internet to find information. The teacher did not assign much homework for his students because most students attended private English institutes after school. He did not want to create a stressful situation in learning English that would cause students to lose their interest in the English learning. The 8<sup>th</sup> grade class was more organized and strict than the 5<sup>th</sup> grade class. The students sat in their chairs at all times and the class's contents were specific to the structures to prepare for the national English exams.

# <u>Analysis</u>

# **Advantages**

In the CALL classroom environments, the students derived extra benefits from the opportunities that they experienced. First of all, technology modified the teachers' inability in English and thus encouraged proper input and output for the students. During the interviews, the teachers admitted that they did not possess adequate proficiency in English, especially the oral skills to teach English. Although the EFL teachers were not able to speak English fluently, the schools were not able to afford native speakers to teach their students English due to a budget and the limited number of qualified native speakers. The teachers claimed that technology was supportive to cover their lack of oral skills in English. In the classrooms, the EFL students listened and repeated native speakers' pronunciation rather than their teacher's wrong or

unconfident pronunciation. Both teachers and students in this study agreed that the pronunciation of native speakers from the software was helpful to learn English. In short, although their classrooms could not have native speakers, technology helped the teachers and the students learn "English," not "Korean English" that is mixed up with Korean-style pronunciations and structures. In the light of this, the students were exposed to more appropriate input and output in English.

Second, the technology gave the teachers mobility. The EFL teachers did not need to stay around their desks because they could see the class's contents or materials from the software through a big screen television. The teachers walked around the classrooms and checked whether their students followed well. I observed that the teachers' mobility reduced the chances that the students slept and were distracted during the classes. In other words, the students were facilitated to focus on the classes by narrowing the physical distance between the teacher and the students. Thus, the students were facilitated to learn English intentionally in the CALL classroom environments.

A third advantage from the opportunities in the classrooms was that the use of technology may have balanced student participation, decreasing chances for dominance by some outspoken students. For example, technology such as the class Web site facilitated the students' participation and appeared to reduce anxiety when they presented in text. The use of technology also expanded time and space for learning through the availability and accessibility of technology. One of the students mentioned the followings:

I like his Web site because he always updates his site fast. Also, I can ask some questions easily without meeting him. Asking questions on the Web site is comfortable and fast because I am very shy. Before when I had any question, I just memorized the answers without comprehension because I was afraid of asking the question to the teacher and I did not want to waste class time because of my stupid question.

Additionally, in both classrooms, because the students practiced repeatedly on software and with classmates, they were more confident and willing to participate in the classroom activities. The ostentatious functions of the technology such as animated characters, sound, movie clips, and songs provide comprehensive input that caught the students' attention and encouraged them to participate in the classrooms.

Fourth, the teachers' repertories were expanded in the CALL classrooms. As a result, the students had various inputs and outputs in learning English. Although the teachers did not have enough technical skills, they could use various activities in their classrooms due to the support from the ministry of education (MOE). The 5<sup>th</sup> grade teacher mentioned:

If the MOE just asks me to use technology in my class without any support, I may still stick to the textbook because I am not good at computers. However, although I do not have much knowledge about technology, I can use technology in my classroom because the MOE provides something I can use easily. I cannot make puzzle programs, movie clips, and songs with the computer. But I don't have to. The MOE does it for us. I just need to select and use them. That is what I can do and I need to do.

Both teachers used puzzle games, movie clips, chants, songs, and projects that the MOE or other teachers created to make learning interesting and efficient. The teachers visited the MOE sites, and they adapted the activities for their students and the lesson contents. Thus, the classrooms were various and energetic to motivate students to learn English.

Fifth, the students' learning took place at home, and the parents were connected to the students' learning. The teachers provided extra activities or information that the students and the

parents could visit through the Internet, and thus the students had opportunities for exposure and production in English for language learning outside of the physical classroom. The students could review what they learned in the classrooms at their own pace and time. Additionally, the handouts would help the parents know what their children learned in the school and how they could help their children. As a result, students' learning could be expanded, and the parents had opportunities to understand the classroom curriculum.

Sixth, I observed a friendly relationship between the teacher and the students that seemed to be facilitated by the technology. According to an old saying in Korea, students cannot step even on their teachers' shadow. Traditionally, the relationship between teachers and students was distant, formal, and strict in Korea. However, I observed a closer and more informal relationship developing with the aid of the technology. As a result, the friendly relationship facilitated a comfortable learning atmosphere and encouraged interacting for language learning. For example, in the 8<sup>th</sup> grade classroom, the students were able to contact their teacher and classmates with email and through the class Website. Their messages exchanged were friendly and practical (see Figure 3). The interaction on the class web site was the joint effort of the teacher and students, rather than just a masterpiece by the teacher. Through reviewing their postings on the class Website, I realized that the teacher was not only a knowledge transformer but also filled roles as a counselor, a friend, and a facilitator. In short, technology and the teacher's technical skills helped him to accomplish his enthusiasm for being more available and breaking down the formal relationship. Thus, the classroom atmosphere was improved to facilitate learning.

Wow, Cute Bomin! Will you really pay attention to your study from now on? I cannot believe that. Is it true? Do I have to believe? If you give me any evidence, I will give you the answer of your question.
But, before that, look at the book and find answer by yourself!! If you really cannot find it, visit my office anytime.
Trying to find the answer is the real learning.
Do you know who said that?
The answer is ....(see below)
E.T.

<u>Figure 3</u>. The  $8^{th}$  grade EFL teacher's reply to the students' question in the bulletin board from the  $8^{th}$  grade English class website. The reply is very friendly and close. They also use symbols to communicate (Translated to English).

#### **Disadvantages**

However, the students missed out on some things from opportunities when they were in the CALL classrooms. First, the standardized testing that focused on reading and grammar did not support to measure the learning in all EFL classrooms including the CALL classrooms of this study. Although the MOE supported interactive language learning environments using various activities with technology, they did not change the ways to evaluate students' learning. In other words, the testing did not correspond to what the MOE suggested for EFL classrooms. As a result, the standardized test could not evaluate students' academic learning, and there was no way to value the whole learning that took place, such as students' understanding of collaboration, participation, and sharing from a project. With all the push toward standardization and

measurable outcomes, the value of experiences from the CALL classrooms seemed to be diminished and degraded by efforts to measure it with the testing. In other words, in the 8<sup>th</sup> grade EFL classroom, no one received a grade based on what they had learned from the projects and the interactions through the Website due to the standardized English exams. The 8<sup>th</sup> grade teacher claimed that he felt a great deal of pressure to focus his instruction on covering the standard curriculum material and raising test scores. I noted that this pressure diminished instructional innovation, such as the creative use of new technologies to reach goals.

Second, the students sometimes concentrated only on the features of the technology, rather than on its contents. Although the visualization of images or situations from software was helpful to catch the students' attention, it sometimes caused the students to focus only on the screen. Some students only paid attention to what was on the screen without focusing on what the native speakers spoke. For example, I observed that some students laughed because of the looks of the characters, not because of the conversation on the screen. Also, some students danced or clapped their hands without singing or chanting because they only saw the motions. As a result, the students sometimes did not have comprehensive input and appropriate output. I realized that the students sometimes did not understand their class contents due to fancy functions of technology.

Third, the students addicted big activities in the CALL classrooms, and it caused the teachers stress to prepare their classes. The students were in the hypermediated world and the teachers attempted to provide some activities in each lesson to make students interested and provide chances to use the expressions they learned. However, I learned that the classroom activities made the students always expect some fancy and dynamic activities in their classes. The 5<sup>th</sup> grade teacher claimed that the students' expectation caused stress for her when she prepared for her class. In other words, the students were used to participating in activities with technology in every single lesson. Thus, when the teachers could not prepared any activities or returned to the conventional activities, I observed that the students felt tedium and disinterest.

Fourth, lack of the teachers' research skills and time limited resources for their students. The students could not get the best sites or materials in the classroom because the teachers did not have enough research skills and thus they kept using certain sites that were developed by the MOE. Although their resources were useful in the classrooms, if they could explore more various information and materials available in the Internet, the student would have better resources or more options for comprehensive input, output, and interaction to learn English in their classrooms.

Fifth, the software occupied the class time a lot. As a result, the students sometimes lost the chances to practice and negotiate meaning with classmates. Although software was able to provide samples of realistic communication and assist understanding of culture and norms of native speakers, it was difficult to skip or flip easily from the front to back thus more difficult to have a comprehensive overview of the content. A 5<sup>th</sup> grade student complained:

Sometimes, I miss group work. Because she focuses on software too much, it takes a lot of time, so we lose many chances to do group work. After we watch the software for today's lesson, not much class time is left. Learning with group work or games is much more fun and is more helpful to learn English for me.

Similarly, another student mentioned:

When we learn chants or songs, it is really hard to control the speed. When we use tapes, we can slow down and repeat certain sections. But with software, we cannot. We should

review the whole thing again, not the section that we want to review. That is why we do not have enough time to do other activities.

Because of the many loops, branches, and paths that were built in the software program, it took a lot of time to go through the materials. This caused a reduction in other class activities. As a result, some students believed that they lost chances to interact with other classmates that they more prefer than using software to learn English.

#### **Technology Integration In the CALL Classroom Environments**

I found that the teachers integrated technology as a part of their classroom environments to support their literacy goals and to motivate their students to learn. In spite of differences between the classes, there was an important common thread: the students in both CALL classes did not consider technology as a special aid for language learning; rather, they saw technology as a part of their learning environments. During the students' interviews, I asked the students about what technology they used in their classrooms. However, one of the students said that he did not use any technology in his classroom. While I saw many technologies in his classroom, the student did not regard computers and software as technology. Then, when I made reference to the technology tools in his classroom, he nodded his head and said "ya, right! We use them." I was curious why he did not notice these technological devices. His answer was "I thought that you wanted something huge or new." I had similar responses from two more student interviewees. I realized that the technologies that they used were not something special to them; instead, it was just another tool such as chalk and a blackboard. It was only a favorite tool and it was always there in the classrooms. In other words, I noted that they perceived that technology served as one of vehicles to help them learn English like other tools in the CALL classrooms. From the teachers' point of views, although they noticed the technology that they used in their classrooms, they believed that technology was one of the required tools to make language learning effective and fun in their classroom environments. In both classrooms, technology was not for decoration; instead, it was actively used for language learning.

Furthermore, the exploration of the CALL classrooms in this study showed that several components worked together to integrate technology into their classroom environments. For example, to achieve the teachers' literacy goals, the MOE required using technology and provided technological and pedagogical support, and the teachers had opportunities to adapt various activities and appropriate technology based on their objectives, instructional strategies, and students' needs. In addition, the teacher and the students interplayed to facilitate the language learning environments. For example, in both classrooms, although technology provided visualized features and pronunciation of native speakers, the feedback from the software was limited and was not very interactive. However, the teachers modified the problem by providing their students interactive feedback, and the students exchanged feedback during practice. In short, neither the teachers nor technology alone completed the learning environments. Each member (e.g., the MOE, the teacher, and the students) was engaged in facilitating the students' language learning. During the data collection, I often observed that the MOE and the teachers coordinated and planned the activities in advance, and computers were not the central focus; instead, the teachers used technology as a means for students' learning in the environments. In light of this, research to understand students' learning in CALL classroom environments should investigate how components of the environment interact together, rather than focus on each single component. Additionally, CALL research should be goal-oriented rather than technologyoriented because technology is a tool that is developed and designed to support certain purposes.

#### **Changing Teachers' Roles**

To provide opportunities for the students in CALL classroom environments, the teachers claimed that they needed to know more and to do more in order to facilitate learning. For example, the 5<sup>th</sup> grade teacher mentioned that although the textbook was improved a lot, it was still unlikely to satisfy the needs of the students and teachers because it was within the range of the target audience set by the textbook authors. Thus, the teachers claimed that they adapted their own materials and put a personal touch on materials and activities for their students and their learning environments. Also, in the 8<sup>th</sup> grade CALL classroom, the teacher designed and managed the class Website to encourage his students to participate, and to support his students' learning. To do this, he invested more time to update his Website and learned more specific webdesign skills. In short, the integration of technology into the classrooms required the teachers to learn new skills and open to loads of resources.

Furthermore, the teachers needed to consider the complexity of language classroom environments among context, students, and tools. While the environment might not improve test scores, I observed that it enhanced classroom dynamics and liberated students and teachers from the traditional roles that defined and limited their inquiries. However, I also saw many students who focused on the technology itself and lost sight of their learning goals. Thus, I realized that teachers must evaluate technology on the basis of its effectiveness in supporting a task for which it is designed because a learning task is beyond technology only.

In summary, the CALL classroom environments only sometimes granted benefits for the students' learning. Although the teachers did not perceive what their students lost in the classrooms, the students sometimes caught what they missed due to the overuse of technology or the fact that the technology was a part of their classroom environments. While the students experienced valuable chances to learn English, they also lost some chances because they were in the CALL classroom environments (see Table1). In short, the CALL environments did not always guarantee the positive impacts for language learning that researchers have noted. Therefore, there is need to reexamine the previous research that only emphasized the positive impacts of technology on language learning. Also, we need to investigate whether these benefits are worth the sacrifice of other chances in the CALL classroom environments.

Advantages	Disadvantages	
technology modified the teachers'	<ul> <li>the standardized testing that focused on</li> </ul>	
inability in English and thus	reading and grammar did not support to	
encouraged proper input and output for	measure the learning in all EFL	
the students	classrooms including the CALL	
<ul> <li>the technology gave the teachers</li> </ul>	classrooms of this study	
mobility	<ul> <li>the students sometimes concentrated</li> </ul>	
the use of technology may have	only on the features of technology,	
balanced student participation,	rather than the contents	
decreasing chances for dominance by	<ul> <li>the students addicted big activities in</li> </ul>	
some outspoken students	the CALL classrooms, and it caused the	
<ul> <li>the teachers' repertories were expanded</li> </ul>	teachers stress to prepare their classes.	
in the CALL classrooms	<ul> <li>lack of the teachers' research skills and</li> </ul>	
the students' learning took place at	time limited resources for their	
home, and the parents were connected	students.	

<ul> <li>to the students' learning.</li> <li>a friendly relationship between the teacher and the students seemed to be facilitated bactle teachers.</li> </ul>	<ul> <li>the software occupied the class time a lot. As a result, the students sometimes lost the chances to practice and</li> </ul>
facilitated by the technology	negotiate meaning with classmates.

Table1. Advantages and disadvantages in CALL classroom environments.

### **Implications**

Based on the findings from the data of this study, I present implications for research and practice/ technology use.

#### **Research**

The findings of this study point out the problems of previous CALL research that was filled with positive outcomes and the potential of technology for language learning. Technology did not always facilitate students' language learning, and it was interwoven with other factors in the environments. This study suggests that CALL research should investigate learning environments that technology is surrounded because technology itself does not make students' learning happen. Therefore, researchers should examine interactions among components of learning environments to truly understand students' learning.

#### Practice/ Technology use

In this study, the students experienced advantages and disadvantages resulting from opportunities in the CALL classroom environments. In short, this study indicates that technology does not always grant promises of technology. It suggests that teachers need to realize both aspects in language classrooms. Teachers should look at whole pictures of CALL classroom environments and decide whether advantages that their students experience are more valuable than losses to reach their goals. In other words, teachers should not be blinded and should not forget their objectives due to technology features or possibilities; instead, they should recognize various impacts for their students' language learning in their CALL classroom environments.

In addition, the data clearly indicate that technology itself does not lead to new methods, techniques, or ideas for language learning to make language classrooms better, and teachers should make their classroom interactive and effective for learning. For example, in this study, I saw the teachers' struggles between their intentions and curriculum to determine how technology fits into their students' language learning. The teachers investigated a variety of technological tools and resources, and they tried to adapt choices made for them by the MOE. In short, the fact that there is technology in a language classroom does not mean that students' language learning is enhanced: instead, teachers' knowledge of technology and efforts to integrate it into their classroom environments are more important in improving classroom environments. In the light of this, Burniske and Monke (2001) suggests that teachers must ask if tools and methods accompanying them will help their students "look out far" or "look in deep," justifying "any watch they keep." In short, teachers' goal-oriented attitude, not technology, is critical to make authentic language learning classroom.

#### **Conclusion**

In the CALL classroom environments in this study, the students actively participated in various opportunities. The teachers and the MOE attempted to assist the students with linguistic needs or technical support to facilitate students' learning. In addition, the learning environment

was not limited to the classroom but instead was expanded via technology. In some ways technology made the classrooms broader and allowed the students to access more resources and communicate with other students. However, from the opportunities in the environments, as I discussed earlier, the students lost some valuable chances while they got some extra benefits for language leaning. In short, these findings are evidence of that technology is not a magic stick that makes everything possible for language learning; the CALL classroom environments did not illustrate dreamy pictures that researchers expected with technology integration.

## **References**

Bardovi-Harlig, K. (1987). Markedness and salience in second language acquisition. *Language Learning*, *37*, 385–407.

Basena, D. & Jamieson, J. (1996). CALL research in second language learning:1990-1994. *CAELL Journal*, 7, 14-22

Burniske, R. & Monke, L. (2001). *Breaking down the digital walls: learning to teach in a postmodern world*. Albany, NY: State University of New York Press.

Chapelle, C. (1997). CALL in the year 2000: Still in search of research paradigms? *Language Learning and Technology*, *1*(1), 19-43. Available: http:// lit.msu.edu/voll num 1/chapelle/default.html.

Chapelle, C. (2001). *Computer Applications in Second Language Acquisition: Foundations for teaching, testing and research*. Cambridge; UK: Cambridge University Press.

Crookes, G. (1989). Planning and interlanguage variation. *Studies in Second Language Acquisition*, 11, (4), 367-387.

Davis, B., & Chang, Y. L. (1994/95). Long distance collaboration with on-line conferencing. *TESOL Journal*, *4*, (2), 28-31.

Doughty, C. (1987). Relating second-language acquisition theory to CALL research and application. In W.F. Smith (Ed) *Modern Media in Foreign Language Education: Theory and Implication*, Lincolnwood, IL: National Textbook Company.

Doughty, C. (1991). Second language instruction does make a difference: Evidence from an empirical study of SL relativization. *Studies in Second Language Acquisition*, *13*(4), 431-469.

Egbert, J. (1993). Learner perceptions of computer-supported learning environments: Analytic and systemic analyses. Unpublished doctoral dissertation. Tucson:University of Arizona.

Fraser, B.J., (1981). Using environmental assessments to make better classrooms. *Journal of Curriculum Studies*, 13, 131-144.

Gass, S., & Lakshmanan, U. (1991). Accounting for interlanguage subject pronouns. *Second LanguageResearch*, 7, 181–203

Krashen, S. (1985). The input hypothesis. New York: Longman.

Liu, M., Moore, Z., Graham, L., & Lee, S. (2002). A look at the research on computer-based technology use in second language learning: a review of the literature from 1990-2000. *Journal of Research on Technology in Education*, *34*(3) 250-273.

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of research on language acquisition. Vol. 2: Second language acquisition.* (pp. 413-468). New York: Academic Press.

Moos, R. (1979). Evaluating educational environments: Procedures, measures, findings and policy implications. San Francisco: Jossey-Bass.

Salaberry, M. R. (1996). A theoretical foundation for the development of pedagogical tasks in computer mediated communication. *CALICO Journal*, 140), 5-36.

Salaberry, M. R. (2000). Pedagogical design of computer mediated communication tasks: Learning objectives and technological capabilities. *Modern Language Journal*, 84(1), 28-37.

Salomon, G. (1991). Transcending the qualitative/ quantitative debate: The analytic and systemic approaches to educational research. *Educational Researcher*. 20. 6. 10-18.

Salomon, G. (1997). *Novel constructivist learning environments and novel technologies: some issues to be concerned with.* Presented at EARLI, Athens, August. Available: http://cybercon98.Harvard.edu/wcm/sal\_article.html.

Sheingold, K. (1987). The microcomputer as a symbolic medium. In R. Pea & K. Sheingold (Eds.). *Mirrors of mind* (pp. 198-210). Norwood, NJ: Ablex.

Warschauer, M. (1999). *Electronic Literacies: Language, Culture, and Power in Online Education*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Warschauer, M. (2000). Online learning in second language classrooms: An ethnographic study. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching. Concepts and practice* (pp. 41-58). Cambridge: Cambridge University Press.

Warschuaer, M (2002). A developmental perspective on technology in language education. *TESOL Quarterly*, *36* (3), 453-475.

Wilson, B. (1996). Introduction: What is a constructivist learning environment? In B.G. Wilson (Ed.). *Constructivist learning environments* (pp.3-8). Englewood Cliffs, N.J: Educational Technology Publications.

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