

INTEGRATING COMPUTER-MEDIATED COMMUNICATION TOOLS INTO ENGLISH CURRICULUM FOR PROMOTING LEARNER AUTONOMY: AN INTERCULTURAL PROJECT

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Abstract— This study discusses the possible application of combined modalities of computer-mediated communication (CMC) tools, namely Email and Skype to foster learner autonomy out of “Freshman English” class and thus facilitate these freshman undergraduates to make transition from high school to university. In order to reach the goal I designed for the course, I involved my EFL students in an out-of-class cross-cultural CMC project, which integrates interactions with native speakers of the target language into language learning and language use autonomously. Data were obtained from students through interviews, reflective diaries and a questionnaire given out at the end of the term. The findings from this study indicated that 1) both the teacher’s and keypals’ supports and encouragements were effective and necessary; 2) good learning habits, taking responsibility for their own learning, motivation for success, effective learning strategies and self-confidence played vital roles in this style of learning process; 3) the participants in this study overwhelmingly chose the synchronous communication as their preferred form of CMC; and 4) they would rather initiate and carry on contact with their international key pals rather than with their classmates.

Index Terms — Computer Mediated Communication (CMC), Independent Learning, Interdependent Learning, Learner autonomy

I. INTRODUCTION

It seems a global phenomenon that college students, in general, lack autonomous skills. As Nielsen (2013) declared, there is a tendency among students at the universities in Denmark to see themselves more like “knowledge receivers” than students taking responsibility for their own learning, a skill so fundamental in university education (Nielsen, 2013). In Taiwan, we also commonly found that many college students do not have good learning habits and are seldom challenged to take responsibility for the direction of their own learning (Hsieh, 2001; Hsu 2006; Hsu, 2007). Sakai & Takagi (2009) suggested that one of the cardinal goals in the educational field is to develop

inexperienced teenagers into autonomous learners. According to Little (1995), the basis of learner autonomy is that the learner accepts responsibility for his or her learning; however, in formal educational contexts learners do not automatically accept responsibility for their learning—teachers must help them to do so. Thus most teachers aim to develop a certain degree of autonomy in their students when they enroll in college. For that reason, many educators, especially English teachers, are concerned with improving learner autonomy (Sakai, & Takagi, 2009).

Social interaction plays an important role in the learning process; accordingly, in Vygotskian concept of zone of proximal development, the social interaction is the basis of cognitive and social development (learning from social interaction with more capable peers or adults (Bruner, 1983). Little (1995), furthermore, argued that learning arises from interaction, which is characterized by interdependence. Teachers must first provide learners with appropriate tools and with opportunities from the very earliest stages of learning. Confidence to use the target language is prerequisite for the language learners when they undertake target language performance in the kind of communicative activity that gradually and, accordingly, promote second language development as well as learner autonomy enhancement. Likewise, Wach (2012) exhorted that the social dimension of autonomy has been increasingly highlighted in recent literature on autonomous learning needs to incorporate elements of interaction, with the teacher, with other learners, or other users of L2, to prepare learners to function in communicative environments.

In recent years, an increasing number of studies investigated the application of different forms of computer-assisted language learning (CALL), and, in particular, the role of computer-mediated communication (CMC) in promoting learner autonomy (Mutlu & ErÖz-Tuğa, 2013; Wach, 2012). According to Wach (2012), computer-mediated communication (CMC) appears to be conducive to fostering learner autonomy because involvement in CMC provides learners with many core features of autonomous learning, such as management and evaluation of their own

learning progress, making decisions on when and how they will engage in CMC, managing interaction in the L2, independence as language learners, and interdependence among CMC participants (Reinders & White, 2011). Chen and Pan (2015) furthermore indicated that English learning is a lifelong journey, not begins and ends in a language classroom. Learners should be taught and guided to become autonomous, take the responsibility of their own learning and be capable to use learning strategies properly so as to improve their language skills. Effective and successful language learning experience requires autonomy and learning strategies (Chen & Pan 2015).

However, previous studies focused on exploring whether the computers and the Internet develop the students' achievement levels or awareness of other cultures. A small number of studies have investigated the computers and the Internet in developing learner autonomy. More research is required to be implemented on the ways that technology-based environments foster learner autonomy (Mutlu & ErÖz-Tuğa, 2013; Nielsen, 2013). Nielsen (2013) suggested that in order to develop the students' academic skills and facilitate them make a successful transition from secondary school to university, they gradually learn how to take responsibility for their own learning, acquire the knowledge, independence, interdependence, and communication skills. These skills are assumed to help students make the difficult transition from secondary school to university as well as prepare them for workplace in the future (Nielsen, 2013).

Accordingly, the aim of this study is to facilitate students to foster learner autonomy by taking advantage of technology. Forty-six students participated in the study who are described as representatives of those who were freshmen in college with almost zero ability in effective communication in using English and ineffective learning strategies, though with fundamental English knowledge to work with a group of American university students via Skype and Email. Skype and Email were chosen for the research project because email writing and oral communication are two important skills needed in the workplace (Martin-Young, 1996). Data was collected from multiple sources, including the students' reflective weekly diaries, a questionnaire and interviews. Results indicated that the intercultural CMC project motivated the EFL students to engage in language use and learning. They then discovered and enhanced learning strategies and fostered higher levels of learner autonomy to become more fluent and confident in oral and written communication skills and more successful language learners. It is hoped that this study will inspire all EFL instructors to be interested in incorporating CMC tools into their English curriculum in promoting learner autonomy for the improvements of the EFL pedagogy in the Taiwanese context. 'Students', 'learners' and 'participants' are interchangeable terms in this study. L2, the target language, EFL and English are also identical terms.

A. RELEVANT LITERATURE

1) *The Contemporary Notion of Autonomy*

Influenced by humanistic psychology, the notion of autonomy has originated from the general archetype of learner-centered instruction and has significantly influenced EFL language education (Ushioda, 2011 a, b; Wach, 2012). According to Thanasoulas (2000), there are numerous definitions and synonyms of autonomy in relevant literature, such as "independence" (Sheerin, 1991), "language awareness" (Lier 1996), and "self-direction" (Candy, 1991). Additionally, learner autonomy is defined as a "capacity for detachment, critical reflection, decision making, and independent action" (Little, 1991:4). Holec (1981; see Benson & Voller, 1997; see Pinkman, 2005; see Thanasoulas, 2000) defined learner autonomy as taking responsibility for one's learning, and being in charge of all the decisions in the learning process — for instance choosing methodology, and evaluating what has been learned. For Holec (see Olmos, 1998), to be an autonomous learner is to be the manager of his or her own learning processes. Some characteristics of autonomous learners are listed, for instance, having insights into their learning styles and strategies, taking an active approach to learning, willing to take risks, good guessers, and having a tolerant and outgoing approach to the target language (see Thanasoulas, 2000). According to Mutlu & ErÖz-Tuğa (2013), using language learning strategies, acquiring a high motivation level to learn the target language, taking responsibility for one's own learning, and continued English language study outside the classroom are four behavioral indicators of learner autonomy.

Researchers have increasingly highlighted the social dimension of autonomy. Little (1995) argued that learning is never solitary or solipsistic. According to the author, total independence is not autonomy but autism; learning arises from interaction, which is characterized by interdependence. Berge (1995) defined learner autonomy as the notion of being ready to act independently and cooperate with others as a socially responsible person. Wach (2012) further exhorted that the social dimension of autonomy has been increasingly highlighted in recent literature on autonomous learning needs to incorporate elements of interaction, with the teacher, with other learners, or other users of L2, to prepare learners to function in communicative environments. Thus autonomous learners always do things do things for themselves; however, they may or may not do things on their own (Little, 2009). Through social interactions, interdependence rather than independence (Benson, 2011), learners develop a capacity to analyze, reflect upon and synthesize information to create new outlooks (Lee, 2011). Simultaneously, the social context of learning facilitates learners to express one's identity through the target language, which is another crucial concept embedded in the contemporary notion of autonomy

(Ushioda, 2011a). In other words, learner autonomy should be a social process for emphasizing interaction with others (Wach, 2012; Reinders & White, 2011). In this current study, the term learner autonomy is concerned with facilitating students to develop the capacity to learn not only independently but also interdependently and social interactively.

2) CMC tools for fostering learner autonomy

Internet technology offers students favorable tools to construct social environments or collaborative activities to discuss and share their knowledge, their experience and their opinions (Liaw, 2006). CMC tools, such as Email, Wiki, Blogging and Skype are built up as a means of overcoming distance, creating and maximizing opportunities to engage in innovative learning practices to interact and collaborate with others online in the target language for culture learning (Chen & Vannoy, 2013; Elola & Oskoz, 2008; Coburn, 2010; Li, 2015). Numerous prior empirical studies (e.g. Elola & Oskoz, 2008; Liaw, 2006; Chen & Brown, 2012; Penz, 2001) have indicated culture learning can be much more successfully achieved when students have the opportunity of interacting with speakers of the target language or different cultures via CMC tools. However, previous studies focused mainly on exploring whether CMC tools develop the students' achievement levels or awareness of other cultures. A small number of studies have investigated CMC in developing learner autonomy. More research is required to be implemented on the ways that technology-based environments foster learner autonomy (Wach, 2012).

There has been increasingly interested in learner autonomy promoted by technology, particularly CMC tools as an integrated part of a university English course outside of classroom (Benson, 2011; Nielsen, 2013). Learners' engagement in CMC reveals the great potential of the social domain of technology-based learning, which can contribute to autonomy enhancement in the sense of interdependence among L2 users rather than autonomy as learner independence (Eneau & Develotte, 2012; Reinders and White, 2011; Wach, 2012).

Numerous studies pointed out some of limitations or problems associated with CMC environments. For instance, Reinder and White (2011) reminded that without proper guidance and feedback, technology does not necessarily lead to increased responsibility for managing learning, and thus developing learner autonomy. Previous studies (e.g. Nozawa, 2002; Liaw, 2006; Throne, 2003; Chen & Brown, 2012; Coburn, 2010; Hsu, 2005; Hsu & Chiao, 2006; Hsu, 2007) indicated that, in general, the intercultural communication via CMC tools was difficult for the EFL participants at initial stages because they do not have much experience in written or spoken exchanges. In order to help students overcome initial shyness and nervousness and feel relaxed to take chances to participate fully in social

interaction with native speakers through CMC tools, they need to be constantly encouraged or supported (Chen & Brown, 2012; Coburn, 2010; Hsu, 2005; Hsu & Chiao, 2006; Hsu, 2007). Blake (2008; see Yanguas, 2010) claimed that successful learning via CMC would depend on careful planning on the part of the instructor or researcher. Chen and Vannoy (2013) and Coburn (2010) also reported that student-centered topics are needed which reflect students' interests and everyday lives in order to facilitate interaction patterns conducive to online teaching of English conversation. In addition, the efficiency of CMC, depends on the belief of learners in their success in overcoming technical, linguistic and cultural barriers (Chen & Vannoy, 2013).

Liu (2012) advised that language educators should be in a more careful, supportive, and effective manner in assisting their students when they consider promoting their students' autonomy. According to Liu, language educators should understand EFL undergraduates' anxiety and affective needs because EFL students in Taiwan in her study have always been a great challenge in learning English due to the limited contact with target-language speakers and lack of opportunities to use English in their daily lives (Liu, 2012). Likewise, Reinder & White (2011) also proposed that the quality of the input, the quality of the syllabus, the quality of the support and the materials provided by the teacher are crucial in the development of learner autonomy.

B. THE INTERCULTURAL CMC PROJECT

1) Research Questions

The research questions, which guided this study are as follows:

1. What problems and difficulties do EFL students encounter during the learning process of the intercultural CMC project?
2. What supports and strategies do EFL students need to receive or develop to overcome their difficulties in the learning process of the intercultural CMC project?
3. Which asynchronous or synchronous communication, do students prefer engaging in when using CMC? What are the reasons for their preference?
4. What are students' perceptions toward their independent, interdependent and social learning in the intercultural CMC project?

2) Participants

In this study, the participants were 46 freshman undergraduate students in my "Freshman English" course at a technological university in Southern Taiwan. At this

university, all the new students were graded into three levels (A, B, C) according to the results of their English scores in the placement test. Consequently, the selected class was in the Level A. The class met two hours a week. The average age of the participants was 18.6 and the average length of their English study was 9.2 years. Among them, there were 22 students majoring in Shipping Transportation and Management, 8 students majoring in Marine Leisure Management, 7 in Information Management, and the remainder in Logistics Management. Thirty-two participants were females and fourteen ones were males. Most participants graduated from vocational senior high schools. Although all of them were non-English majors, they realized the important role of English in the contemporary multicultural world and the global marketplace. They were very delighted when they knew that a project provided them with opportunities to interact with American college students via Skype and Email into promote language learning and use. Students were assigned an American keypal based on similar interests.

A group of twenty-eight students from a mid-west American university were invited to be keepals for Taiwanese students. However, the number of students recruited in the two groups was not even. In order to conduct in an approximately 10-month “key pal” exchange project, some American students voluntarily took two or three Taiwanese students as their keepals. All of these American students are native speakers of English. They were recruited because they showed interest in the project. All the names used in the paper are pseudonyms.

3) Context and Procedure

At the outset of the project, Skype and e-mail were introduced. These Taiwanese participants were asked to use English to talk with their American keepals via Skype at least once a week. Alternatively, they could choose to write emails with their American keepals. In addition, they were also asked to write a weekly reflective diary (see Appendix A) on which they reflected on their cross-cultural interactional learning experience via CMC tools. They were allowed to write their weekly diaries in Chinese during the first few weeks in order to reduce their stress, although using English was considered preferable. Furthermore, they were requested to upload their Skype voice chat entries, email entries and reflective weekly diaries to the teacher's Web site.

4) Instruction and Learning Activities

The first month of the project was assigned for the EFL students to get to know their American keepals by starting with “self introductions” and chat freely. At the same time, I observed them in the class hours, read their reflective weekly diaries, held discussions and maintained

communication with them through Email and Skype, started to identify problems, and provided support and encouragement. From the second month on, these interventions included a series of in-class and out-of-class assignments and activities were added to offer students to have more opportunities to practice and use English as much as possible in the hope of helping them to be more motivated and interested and more confident in the cross-cultural interaction:

Based on my understanding of the students' English levels and their usual interests, I selected Impact Values (Day, et al., 2003), and Hot Topics (Pavlik, 2006) in two semesters respectively for teaching and learning materials, which offered many interesting topics such as people, relationships, workplace, family, society and life, for the EFL students. As soon as the students learned a chapter of a book in the class, interactive activities followed up to be arranged for them to work in small groups to discuss the topic they just learned from the book. These activities allowed them to talk about their own and hear others' ideas, beliefs, values, experiences, and opinions as well. Then they were recommended to further use the same topic they had practiced earlier in the class and then in their intercultural interaction online. They were often praised for their successful attempts to communicate their ideas in English (Day, et al., 2003).

Students were also assigned to do research on some cultural topics so that they could understand more about their own culture and introduce it to their American keepals. For instance, they did research on the topics such as the origin of night markets in Taiwan, the history of Chinese New Year, Mid-autumn Festival and Dragon Boat Festival.

Students were also required to do out-of-class assignments and activities: For instance, listen to the textbook CD and read it aloud every day and write a paragraph (at least 120 words) of a summary of the chapter from the book with their feedback every week. In addition, these EFL students were offered the strategy training in speaking, listening, writing and reading. They were instructed, for instance, on how to initiate conversation, how to think in English rather than translate, how to use key words, how to guess and catch main ideas when using English in the authentic communication online.

5) Data Collection and Analysis

As stated above, the participants were asked to keep diaries regarding their cross-cultural interactional learning experience and their reflection on the development of learner autonomy in language learning and language use via CMC tools. Reflective weekly diaries were all collected at the end of the project. At the end of the project, a questionnaire, (see Appendix B) was distributed to investigate their perceptions of the project. In addition, informal and formal interviews were undertaken. During the process of the project, I often talked with them to discover

their difficulties and what support or guidance they needed. In-depth, semi-structured interviews were conducted as well. Each interview lasted 25 to 30 minutes via Skype at the end of the project. Finally, data collected from the questionnaire, interviews and reflective weekly diaries were analyzed and combined to provide for triangulation to reduce bias and increase reliability.

C. RESULTS

The intercultural CMC project was concluded at the end of the second semester. The questionnaire, interviews and reflective weekly diaries were collected as the research data at the end of the project. From the analysis of the research data, the research questions will be answered as follows:

1) Problems and Difficulties Encountered

The questionnaire data show that all of the 46 participants in this study lacked the experience of using English to have cross-cultural communication with people from other countries before the 'Freshman English' course. In addition, all of them stated that they experienced the feeling of being nervous and shocked when they first used English to talk with their keypal. The interviews and reflective weekly diaries further confirmed that all of them came to this course with almost zero ability in effective communication in using the L2 and ineffective learning strategies, though with fundamental English knowledge. According to their reports, regardless of their numerous online experiences they had when they were in high school, they said they had never thought of chatting with someone online in English or had no experience in using English to communicate with others, specifically foreigners, in both spoken and written forms. They felt frustrated and embarrassed when they encountered language barriers. This learning experience was quite different from any others they had encountered before, as one student stated in his diary,

In high school I simply listened to the teacher's lectures, memorized the vocabulary and studied some grammatical rules and then I could pass the tests and examinations and get high scores. When I found that I could not understand my American keypal and had difficulty in the conversations, I felt very stressful and frustrated.

In interviews and their diaries, they declared their dissatisfaction with their previous learning experience because it had not prepared them to use the target language for communication. Accordingly, they faced certain difficulties before adjusting to the new communicative learning experience and venue. In initial stages, linguistic problems were major roadblocks for students who felt frustrated by the learning process. Besides linguistic problems, learning habits were also found to be another cardinal difficult things for many participants to change. For example:

"I don't have any good learning habits. I usually studied English just one day or two days before mid-term or final examinations."
"I just expect my teacher to teach me English in the classroom and I don't learn English or something outside of classroom."

2) Supports and Strategies for Overcoming Difficulties

It is interesting to find that over time, as the students regularly interacted with each other, intercultural friendships and supports were formed. The questionnaire data indicated that 83% (N=38) of participants concurred that they made international friendships with their keypals in the project; meanwhile 76% (N=35), have become much more relaxed and confident in using the target language at the end of the project. Many of the participants reported in their interviews that they gradually overcame their fears, built up their confidence, and communicate with their keypals regularly and then their negative feelings or anxieties vanished sooner or later. They further confirmed that they were not good at English language use at first, but they received a lot of supports and assistance from their American keypals. For instance, if they pronounced English words incorrectly, their American keypals would help them pronounce correctly and encourage and guide them to speak more by asking and answering questions. After their American keypals' supports, they felt much relaxed and confident in English language use. Therefore, in the questionnaire, 80% (N=37) of participants answered that they enjoyed the project and found interacting with people from other cultures interesting. Some students also depicted their experiences in meeting and interacting with other international keypals beside their American keypals. As one student stated,

After three months later besides my American keypal I also acquainted several other international key pals who I met online. At first I was very nervous, and I often said that I was sorry that I could not speak English well. They said that I did not need to say sorry and I should be proud of myself. And they should feel shamed for they could not speak anything in my language at all. They gave me a lot of encouragement, confidence and opportunities in using English. So I also chat with them regularly.

In addition to getting supports from their keypals, 87% (N=40) concurred in the questionnaire that it was important to get support and guidance from their teacher in the project. In their diaries and interviews, many participants described that they were thankful for the teacher, who often offered them immediate and necessary support and encouragement, especially when they were frustrated. As one participant related, "It is convenient for us to contact and chat with our teacher by Email, and Skype if we need any help." Some

participants described that at first they did not know how to talk, what to talk about on Skype and what to write in emails with their international keypals. They said it was quite useful to be instructed how to initiate conversation with international keypals, how to introduce themselves and which interesting questions and topics to use to start and continue conversations online.

Nevertheless, the most important support was from their own strong motivation and determination to be successful in their language learning as shown in their diaries and their interviews. Many of them described what they did to help themselves overcome the difficulties at the initial stages. Reflecting very critically about her change as a language learner and user in her linguistic and social-affective developments, one student reported in detail in her interview,

This project forced us to use and learn English. This learning experience is so different from the ones I had previously. I really had the difficulty in adjusting to this kind of learning at first. In the beginning, I wanted to run away from this kind of learning. However, I think I am a college student now and need to make a big change as well. Therefore I encouraged myself to be active in studying English and in using English to communicate with my American key pal. So, I did many things which I seldom did regularly when I was in high school. For instance, in order to improve my listening comprehension, enrich my vocabulary power, better my pronunciation and intonation, within the two semesters, I often listened to the CD of English learning materials and read English aloud as many times as I could every week. I also watched a lot of English TV programs, and read English magazines. Sometimes, I watched the rented English movies at home on weekends and changed the subtitles into English and watched them several times. I always wrote down the words I did not know and looked them up in the dictionary after watching them. In addition, I attempted to express my ideas in the class discussions and in my summary writing assignments outside of the class. Then I gradually overcame the fear or nervousness in using English. Once you overcome it, it will be easier for you to achieve something. Now my anxieties seem to vanish. I feel very happy and confident in speaking and writing in English and have confidence in myself.

Simultaneously, in the questionnaire, 70% (N=32) of students reported that it was important to develop learning strategies in the intercultural project. As one student described his experience in developing learning strategies in his diary:

At first, I wrote in Chinese first, then translated it into English before I was writing an email. It usually took me a long time in order to finish an email in English. I used the same way while speaking via Skype. Sometimes I found out that translation directly from Chinese into English did not

make sense to my keypal. After the strategy instruction I had from the English class, I learned that it is very important for us to learn to think in English while I am writing and speaking in English. Now while I am using English, I try to think only in English. In addition, it is also very important to learn to catch the meanings from the key words rather than try to understand every word in reading or in listening as we learned from the strategy instruction in the class.

Thus through constant use of the target language for social interaction with international key pals, and built international friendship with them, they received supports not only from their teacher but also from their keypals. They gradually developed their learning strategies and good learning habits, their motivation for success in language learning and language use seemed to boost and their anxieties seemed to become lower and eventually disappeared. Accordingly they gradually overcame their difficulties and problems, and progressed towards a higher level of language proficiency and learner autonomy over time. In the second semester, near the end of the project, I have found that most of the participants had become much more relaxed and confident in using the target language.

3) Preference and Choice of Asynchronous and Synchronous Communication

In the questionnaire, 78% (N=36) of participants commented that they preferred to have international key pals rather than their classmates online. According to their reports in interviews, they liked to exchange their ideas, values and experiences with their international key pals. In addition, with them they could raise cross-cultural awareness, and practice using the target language. Some other students explained their reasons why they did not like to have key pals as their classmates: e.g. they tended to use Chinese when they chatted with or wrote to their classmates by CMC tools especially when they encountered the vocabulary they were not familiar with. They reported that it is essential to have more international key pals and seek more opportunities to learn to use the target language to communicate with others outside the classroom.

The questionnaire data furthermore showed that 83% (N=38) of these participants agreed that using CMC tools was advantageous to developing their learning and communication in English; meanwhile, 70% (N=32) of students preferred synchronous communication. That is, they preferred online chatting or discussion through Skype, which was easy for them to access and interact with international key pals. According to their reports in the interviews, with the help of Skype they needed to learn to understand English, and to think and respond in English quickly. One student reported in the interview that talking on Skype is an efficient way to help develop language skills, telephone skills, and, especially, communication skills. As another student also stated in his diary:

I have become interested and confident in speaking English because I frequently talk with an international key pal from Brazil via Skype to discuss such issues as world news, economy and politics and environments. He also likes to practice his spoken English. We are all college students and almost of the same age. We always enjoyed talking to each other. We have learned a lot from each other.

Nevertheless, another six students preferred the asynchronous communication on Email. In the interviews, three participants noted that they would like to increase their proficiency especially in their writing ability. Other students reported that their part-time jobs were the reason for their preference in choosing Email, as their time schedules was a factor.

4) Students' Attitudes towards Using CMC Tools

Over time, as the students regularly interacted with their keypals, majority of students' attitude toward the target language learning and use changed from passive to active and from negative to positive. In the questionnaire, 76% (N=35) of the participants acknowledged that using CMC tools for language learning and use should be compulsory and 83% (N=38), would like to continue to learn through this way even after the project is over. These participants positively perceived interdependent and social learning through CMC tools. In their interviews, most of participants claimed that using CMC tools was important and useful for them in developing their language skills, communication skills, and cross-cultural understanding. As one student mentioned in his interview:

I have studied English for so many years. I believed that if I did not open my mouth to speak English, I would not be able to learn to speak English. This project let me realize that it is very important to learn to use English to communicate with people from abroad through Skype and Email outside of the classroom. Through this way, I have improved my communication skills, English language skills as well as cross-cultural understanding.

Nevertheless, it is essential to point that there were some students did not concur that participation in using CMC tools should be made compulsory. According to their reports in the interviews, they wanted to learn English because they wanted to learn, not because they were forced to learn. Simultaneously, there were still a few students who seemed reluctant to continue in using CMC tools for learning. Three students complained that it was quite time consuming and learned nothing in using CMC tools for learning and they just wanted to read books.

D. PEDAGOGICAL IMPLICATIONS AND CONCLUSION

Based on my observations throughout the project and data analysis, the implementation of an intercultural CMC project motivated freshman undergraduates to foster autonomous language learning and language use. My students turned out to take an active approach to learning, willing to take risks, developing language learning strategies, taking responsibility for their own learning and enjoying language learning and use outside the classroom which are some characteristics of autonomous learners or behavioral indicators of learner autonomy (Mutlu & ErÖz-Tuğ, 2013; Thanasoulas, 2000). Accordingly, the goals I arranged for the English course were generally realized.

EFL teachers may need to consider including varied forms of social interactional CMC tools and activities when conducting their research projects. As we found, more students would like to develop their oral communication skills more than any other skills. Thus students can practice their speaking skills by taking advantage of Skype or other CMC tools, which can be easy and convenient for them to access and interact with their keypals and get immediate responses. In the project, we also found that the participants preferred to have keypals from abroad rather than from their class. Language teachers may need to create and maximize opportunities to engage their learners to interact with native speakers or other users of the target language on their autonomous learning needs.

Although majority of participants appreciated intercultural CMC exchanges, there were still several other students who did not seem to enjoy the project. It is crucial for teachers to observe and become more aware of students' individual differences and be conscious of their needs in the learning process if they engage their students in intercultural CMC exchanges.

Hopefully, this study will inspire English educators to consider incorporating various technology-based environments -- especially authentic, communicative, global venues -- into their pedagogy for the purpose of fostering learner autonomy, especially for freshman undergraduates. By so doing, it will be an alternative and effective approach to specifically benefit freshman undergraduates to make transition from high school to university, and then further, to prepare and be ready for the job market (Nielsen, 2013).

REFERENCES

- Agiorgitis, A. (2003). Technology and autonomy in language acquisition: problems and possibilities. <http://www.siliconyogi.com/andreas/T532>
- Benson, P. (2011). What's new in autonomy? *The Language Teacher*, 35, 15-18.
- Benson, P. & Voller, P. (1997). *Autonomy and independence in language learning*. London: Longman.

- Berge, Z. (1995). CmC and the online classroom in distance learning. *Computer-Mediated Communication Magazine*, 2(4), 6.
- Biesenbach-Lucas, S. (2003) Asynchronous discussion groups in teacher training classes: Perceptions of native and non-native students. *Journal of Asynchronous Learning Networks*, 7 (3), 24-46.
- Blake, R. (2008). *Brave new digital classroom: Technology and foreign language learning*. Washington, D.C.: Georgetown University Press.
- Blin, F.(1999). CALL and the Development of Learner Autonomy. In R. Debski & M. Levy (Eds.). *World CALL: Global Perspectives on Computer-Assisted Language Learning*. The Netherlands:Swets & Zeitlinger Publishers.
- Brown, H. D. 1987. *Principles of language learning and teaching*. Englewood Cliffs, JC: Prentice Hall.
- Bruner, J. (1983). *Child's Talk: Learning to Use Language*. Oxford: Oxford University Press.
- Candy, P. (1991). *Self-direction for Lifelong Learning*. California: Jossey-Bass
- Chapelle, C. (2001). *Computer applications in second language acquisition*. Cambridge University Press.
- Chen, C.C., & Brown, K.L. (2012). The effects of authentic audience on English as a second language (ESL) writers: a task-based, computer-mediated approach. *Computer Assisted Language Learning*, 25(5), 435-454.
- Chen, H.I. & Pan, H.H. (2015). Learner autonomy and the use of language learning strategies in a Taiwanese junior high school. *Journal of Studies in Education*, 5(1), 52-64
- Chen, P-C. (2004). EFL students' learning styles and attitudes toward technology use. *Selected Papers from the Thirteenth International Symposium on English Teaching* (pp. 302-312), ETA-ROC. Taipei: Crane.
- Chen, C.C., & Vannoy, S. (2013) Voice over Internet Protocol (VoIP) technology as a global learning tool: Information systems success and control belief perspectives. *Contemporary Education Technology*, 4 (2), 87-107.
- Coburn, J. (2010). Teaching oral English online - through Skype (VOIP). *Acta Didactica Norge*, 4(1) 1-28.
- Cubillos, J. H. (1998). Technology: A step forward in the teaching of foreign languages. In J. Harper, M. Lively, & M. Williams (Eds.), *The coming of age of the profession: Issues and emerging ideas for the teaching of foreign languages* (pp. 37-52). Boston: Heinle & Heinle.
- Dahlin, E.D. (1997). Email in the classroom. In P.N.D. Lewis & T. Shiozawa (Eds.), *CALL: Basics and beyond (The proceedings of the second annual CALL N-SIG Conference, Chubu University, Aichi, Japan, May 31-June 1, 1997* (pp. 27-31). Nagoya: Chubu Nihon Kyoiiku Bunkakai.
- Dickinson, L. (1993). 'Talking shop: aspects of autonomous learning'. An interview with Leslie Dickinson. *ELT Journal* 47:4.330-336.
- Dornyei, Z. (1998). *Motivation in second and foreign language learning*. CILT: CUP.
- Ellsworth, J. (1994). *Education on the internet*. Indianapolis: Sams.
- Elola, I., & Oskoz, A. (2008). Blogging: Fostering intercultural competence development in foreign language and study abroad contexts. *Foreign Language Annals*, 41 (3), 454-477.
- Eneau, J., & Develotte, C. (2012). Working together online: Analysis of learners' perceptions of their online learning experience. *ReCALL*, 24, 3-19
- Firmin, S. & Miller, C. (2005). Facilitating the development of lifelong learners through e-communication tools. Available
http://www.ascilite.org.au/conferences/brisbane05/blogs/proceedings/24_Firmin.pdf
- Furmanovsky, M. (1999a). Intercultural communication through computer keypals, *Kokusai Bunka Journal*, Ryukoku University Kohusai Bunka Gakkai, 144-149.
- Furmanovsky, M. (1999b). Keypals for intercultural communication: Using course syllabi and other materials in teacher homepages to help design an intercultural e-mail exchange project. Available http://www.world.ryukoku.ac.jp/~michael/does/keypals_article.html
- Furmanovsky, M. (2000). Keypals for intercultural communication: Using teacher homepages to design an email exchange project. In P.N.D.Lewis (Ed.). *Call Asia: The proceedings of the 4th annual JALT CALL SIG Conference, Kyoto, Japan, May 1999* (pp.235-238). Nagoya: Chubu Nihon Kyoiiku Bunkakai.
- Geary, W.T. (1998). *From dependence toward independence via interdependence*. Paper presented at the annual meeting of the American Educational Research Association, San Diego.
- Hanson-Smith, Elizabeth (2000). The role of technological environments in language education. In Hanson-Smith, Elizabeth (Ed.). *Technology-enhanced learning environments*. Alexandria, Virginia: Teachers of English to Speakers of Other Languages, Inc.
- Henry, P. & Li, X. (2005). Choices in asynchronous communication for postgraduates teaching students. *The JALT Journal*, 1(1), 3-11.
- Herrington, J. , Oliver, R., & Reeves, T.C. (2002). Patterns of engagement in authentic online learning environments. Available
<http://www.ascilite.org.au/conferences/auckland02/proceedings/papers/085.pdf>
- Holec, H. (1981). *Autonomy and foreign language learning*. Oxford:Pergamon.
- Holec, H. (1987). The learner as a manager: Managing learning or managing to learn? In A. Wenden & J. Rubin (Eds.), *Learning strategies in language learning*. Prelice-Hall International, UK.
- Hsieh, L.T. (2001). Business English: How and what to teach. *The Bulletin of National PingTung Institute of Commerce*, 3, 59-70.

- Hsu, S.Y. (2005). Building language-learning environments to help technological university students develop English independent learning. *The JALT Journal*, 1(2), 51-66.
- Hsu, S.Y. (2006). Needs analysis of the "Business for Hotels"—Linking school with the workplace. *Proceedings of the 23 International conference on English Teaching and Learning in the Republic of China*, 1, 407-422.
- Hsu, S.Y. (2007). Promoting Learners Autonomy through Technology in the "English for Business" Curriculum. *Selected Papers from the Sixteenth International Symposium on English Teaching*, 416-427.
- Hsu, S.Y. & Chiao, T.L. (2006). Using computer-mediated communication tools to support independent learning. *Journal of Applied Foreign Languages*, 5, 35-56. College of Foreign Languages, National Kaohsiung First University of Science and Technology.
- Kern, R. (1996). Computer-mediated communication: Using e-mail exchanges to explore personal histories in two cultures. In M. Warschauer (Ed.), *Telecollaboration in foreign language learning: Proceedings of the Hawaii symposium* (pp. 105-119). Honolulu: HI: University of Hawaii.
- Kitao, K., & Kitao, S. K. (1997). Keypal opportunities for students on WWW. Available <http://www1.doshisha.ac.jp/~kkitao/online/www/kitao/int-keyp.htm>
- Li, K. (2015). Learning styles and perceptions of student teachers of computer-supported collaborative learning strategy using wikis. *Australasian Journal of Educational Technology*, 31(1), 32-50.
- Liaw, M.Y. (2006). E-learning and the development of intercultural competence. *Language learning. The Language Learning Journal*, 10 (3), 49-64
- Lier, van L. (1996). *Interaction in the Language Curriculum. Awareness, Autonomy and Authenticity*. USA: Longman.
- Little, D. (1991). *Learner autonomy: definitions, issues and problems*. Dublin: Authentik.
- Little, D. (1995). Learning as dialogue: The dependence of learner autonomy on teacher autonomy. *System* 23(2), 175-181. Retrieved from <http://people.exeter.ac.uk/zhhm201/1-s2.0-0346251X95000066-main.pdf>
- Little, D. (2000). We're all in it together: Exploring the interdependence of teacher and learner autonomy. Presented at Autonomy 2000, University of Helsinki Language Center, 7-9 September 2000.
- Little, D. (2009). Language learner autonomy and the European language portfolio: Two L2 English examples. *Language Teaching*, 42, 222-233.
- Liu, H.J. (2012). Understanding EFL undergraduate anxiety in relation to motivation, autonomy, and language proficiency. *Electronic Journal of Foreign Language Teaching*, 9(1)123-139. Retrieved from <http://e-flt.nus.edu.sg/>
- Martin-Young, N. (1996). Communication skills in the workplace employers talk back. *The CEI Newsletter*. Retrieved from <http://www.sandhills.edu/academic-departments/english/teaching/comskills.html>
- Morse, K. (2003). Does one size fit all? Exploring asynchronous learning in a multicultural environment. *Journal of Asynchronous Learning Networks*, 7 (1), 37-55.
- Muehleisen, V. (1997). English via the Internet: Using the Internet in university classes. In P.N.D. Lewis & T. Shiozawa (Eds.), *CALL: Basics and beyond (The proceedings of the second annual CALL N-SIG Conference*, Chubu University, Aichi, Japan, May 31-June 1, 1997, 37-40. Nagoya: Chubu Nihon Kyouiku Bunkakai.
- Muehleisen, V. (1998a). Motivating language learning through email exchange. In P.N.D. Lewis (Ed.), *Teachers, learners, and computers: Exploring relationships in CALL*. 69-74. Nagoya: Chubu Nihon Kyouiku Bunkakai.
- Muehleisen, V. (1998b). *Organizing email penpal exchanges*. Available <http://faculty.web.waseda.ac.jp/vicky/papers/email.html>
- Mutlu, A., & ErÖz-Tuğa, B. (2013). The role of computer-assisted language learning (CALL) in promoting learner autonomy. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 51, 107-122.
- Nielsen, H.L. (2013). How can E-learning promote learner autonomy? Center for Melleostudier, Syddansk Universitet, Retrieved from <http://static.sdu.dk/mediafiles/1/F/F/%7B1FF24AF7-4F24-4CA0-96F0-3E4607412148%7DHL0313.pdf>
- Nozawa, K. (2002). Keypal exchanges for writing fluency and intercultural understanding. In P. Lewis (Ed.), *The changing face of CALL: A Japanese perspective*, 187-201. Tokyo: Swets & Zeitlinger Publishers.
- Olmos, M.A.C.(1998). *SLA research on self-direction: Theoretical and practical issues*. Unpublished PhD dissertation, Institute of Education, University of London.
- Oxford, R. (1990). *Language learning strategies: what every teacher should know*. Boston: Heinle & Heinle Publishers.
- Penz, H. (2001). Cultural awareness and language awareness through dialogic and interaction using the Internet and other media. In A.-B., Fenner (ed.) *Cultural awareness and language awareness based on dialogic interaction with texts in foreign language learning*. European Centre for Modern Languages, Council of Europe Publishing, 2001, 103-127.
- Pinkman, K. (2005). Using blogs in the foreign language classroom: Encouraging learner independence. *The JALT Journal*, 1 (1), 12-24.
- Reinders, H., & White, C. (2011). Special issue commentary: Learner autonomy and new learning environments. *Language Learning & Technology*, 15, 1-3.
- Robb, T.N. (1996). E-mail keypals for language fluency. *Foreign language notes, Foreign Language Educators of New Jersey*, 38 (3), 8-10. Available <http://www.kyoto-su.ac.jp/~trobb/keypals.html>

- Sheerin, S. (1991). State of the art: self-access. *Language Teaching*, 24: 3, 153-157.
- Sheerin, S. (1997). An exploration of the relationship between self-access and independent learning. In P. Benson & P. Voller (Eds.) (1997) *Autonomy and Independence in Language Learning*, London: Longman, 54 – 65.
- Sakai, S. & Takagi, A (2009). Relationship between learner autonomy and English language proficiency of Japanese learners. *The Journal of Asia TEFL*, 6(3). 297-325.
- Smith, B. (2003). The use of communication strategies in computer-mediated communication. *System* 31, 29-53.
- Son, J. -B. & O'Neill, S. (1999). Collaborative e-mail exchange: A pilot study of peer editing. *Multimedia-Assisted Language Learning*, 2 (2), 69-87. Available <http://www.usq.edu.au/users/sonjb/papers/mall99.htm>
- Thanasoulas, D. (2000). Learner autonomy. Available <http://www.eltnewsletter.com/back/September2000/art322000.htm>
- Throne, S. L. (2003). Artifacts and cultures-of-use in intercultural communication. *Language Learning & Technology*, 7(2), 38-67. Retrieved from <http://ilt.msu.edu/vol7num2/thorne/default.html>
- Ushioda, E. (2011a). Motivating learners to speak as themselves. In G. Murray, X. Gao, & T. Lamb (Eds.), *Identity, motivation and autonomy in language learning* (pp. 11-24). Bristol: Multilingual Matters.
- Ushioda, E. (2011b). Why autonomy? Insights from motivation theory and research. *Innovation in Language Learning and Teaching*, 5, 221-232.
- von Kolln, G.M. (1998). Developing learner autonomy via the international e-mail tandem network. In P.N.D. Lewis (Ed.), *Teachers, learners, and computers: Exploring relationships in CALL*. 75-80. Nagoya: Chubu Nihon Kyouiku Bunkakai.
- Wach, A. (2012). Computer-mediated communication as an autonomy-enhancement tool for advanced learners of English. *Studies in Second Language Learning and Teaching* 2 (3). 367-389.
- Wach, A. (2015). Advanced learners' intercultural experience through computer-enhanced technology: A study of Polish and Romanian students. In L. Piasecka et al. (eds.), *New Media and Perennial Problems in Foreign Language Learning and Teaching*, Second Language Learning and Teaching, Retrieved from [file:///Users/apple/Downloads/9783319076850-c1%20\(3\).pdf](file:///Users/apple/Downloads/9783319076850-c1%20(3).pdf)
- Warschauer, M. (1995). E-mail for English teaching: bring the internet and computer learning networks into the language classroom. *Teachers of English to Speakers of Other Language*, Inc. Virginia, USA.
- Warschauer, M. and Meskill, C. (2000). *Handbook of Undergraduate Second Language Education*. Edited by J. Rosenthal. Mahwah, N.J.: Lawrence Erlbaum.

Wenden, A. 1998. *Learner strategies for learner autonomy*. Great Britain: Prentice Hall.

Appendix A: Diary Guidelines

Dear Students,

Thank you very much for your help with this research, which aims to investigate how students in Taiwan develop language learning and use and foster learner autonomy through CMC. Here are suggestions on how to approach writing your diary in English.

1. Please do not worry too much about your grammar.
2. Please do not use your dictionary too often. Try to express your ideas clearly.
3. Please write anything and everything you feel soon after you chat with your keypal(s) via Skype and Email. For example, you can write about:
 - (a) your feelings about engaging in the intercultural activities.
 - (b) learning or teaching activities in the classroom and your feelings about these activities.
 - (c) your opinions about how English should be learned.
 - (d) your reflections on your problems, difficulties and progress in your learning process through Skype and Email.
 - (e) the time you spent engaging in intercultural activities.

Appendix B: Questionnaire (Translated from Chinese into English)

1. Did you have any cross-cultural interactional learning experience with people from other countries in English the "Freshman English" course?
Yes ___ No ___ Unsure ___ Comment:
2. Did you experience the feeling of being nervous and shocked when you first used English to talk with your keypals? Yes ___ No ___
Comment:
3. Did you have good learning habits before the "Freshman English" course? Yes ___
No ___ Comment:
4. Was it important to get support and guidance from my teacher in the intercultural project?
Yes ___ No ___ Comment:
5. Did you enjoy the project and find interacting with people from other cultures interesting?
Yes ___ No ___ Comment:
6. Have you become much more relaxed and confident in using the target language at the end of project?
Yes ___ No ___ Comment:
7. Did you make international friendships with your keypals in the project?
Yes ___ No ___ Comment:
8. Was it important to develop learning strategies in the intercultural project?
Yes ___ No ___ Comment:

9. Have you become more relaxed and confident in using English to communicate with others in English through CMC tools? Yes___ No ___ Comment:
10. Did you enjoy the project and find interacting with people from other cultures interesting? Yes___ No ___ Comment:
11. Was it important to get support and guidance from my teacher in the intercultural project? Yes___ No ___ Comment:
12. Was using CMC tools advantageous to developing their learning and communication in English. Yes___ No ___ Comment:
13. Which do I prefer, to have asynchronous (Email) or synchronous communication (Skype)? Asynchronous communication___ Synchronous communication___ Comment:
14. Which do you prefer, to have keypals from your class or from abroad? Your class_ ___ From abroad ___ Unsure ___ Comment:
15. Will you continue to use CMC tools to use English to communicate with people even after the class ends? Yes___ No ___ Comment:
16. Do you consider that using CMC tools for language learning and use should be compulsory? Yes___ No ___ Comment:

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