Computer-Mediated Communication in Language Learning Vis-À-Vis Proficiency in the English Productive Skills among Students of Selected Higher Education Institutions

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ABSTRACT

This study aimed to establish any significant relationship between the respondents' use of computer-mediated communication (CMC) in English learning and their proficiency levels in productive skills. This study employed the descriptive – correlational research design involving one hundred ninety eight (198) respondents randomly selected from the population of 917 second year Education and Information Technology students from the four selected higher education institutions in Zamboanga City, Philippines. Researcher-made Survey-Questionnaire in Computer-mediated Communication (CMC) Use in English Learning, the Writing Skill and the Speaking Skill tests were used. Results showed that: 1) respondents were average users of CMC in English learning; 2) they obtained average proficiency level in their productive skills; 3) there was a significant relationship between the respondents' CMC use in English learning and proficiency level in productive skills; 4) there was a significant difference in the respondents' CMC use in English learning when data were grouped according to gender and type of school while no significant difference in course; and 5) there was a significant difference in the respondents' proficiency levels when data were grouped according to course and type of school while no significant difference in gender. It can be deduced that the type school is a contributing factor for the

respondents' CMC use in English learning and proficiency levels. The school can advocate the use of CMC in the class to create impact and produce meaningful teaching-learning environment to students.

INTRODUCTION

Recently, there has been a growing interest between English as a Second Language in the Philippine Higher Education and the Information and Communication Technology (ICT). Undoubtedly, most researches focus mainly on the ability of the undergraduates in using those emerging technologies in their learning process to fully equip themselves in technical and language proficiency.

Significantly, Garcia (2006) stressed that Philippines has been known to be the third largest English-speaking nation in the world. However, Salazar (2007) recounted the March 2006 SWS survey on the Filipino's self-assessed proficiency in the English language which shows a decline over the last twelve years compared to earlier SWS surveys in December 1993 and September 2000. He further expounded that the decline is manifested in all aspects of English proficiency from ability to speak and write and to think in English.

For this reason, Macasinag (2011) pointed out that the decline in English competence will bring negative effects on our opportunity to compete in progress with other races. As a result, a shrinking English proficient workforce would dissuade international companies from investing in the Philippines.

While Alave (2006) emphasized that the market is demanding an English language proficient force. Garcia suggested that since the Filipino workforce is one of the richest resources of the country, they must attain good English communication skills which will ultimately help the country maintain its leading competitive advantage in the global economy.

Macasinag believed that the school and the home are the best places where Filipinos can develop good English communication skills. Everyone from the educators to the students should aim for quality in English education.

Rathnasena et. al (2013) stressed that with the rapid development in society, computer technology and network now play a more prominent role in facilitating language learning. Notably, language educators are continuously redesigning the teaching-learning process in the classroom environment in order to meet

the challenges being faced by college students in this 21st century education to become globally competitive.

In the same way, every institution has to invest time, effort and huge resources to respond on the needs of this knowledge society in which K-12 curriculum in its fifth year of implementation and ASEAN Integration which is being implemented a year ago.

The fact that second language-related factors complicate the online communication environment is undeniable, and this suggests that computer-mediated communication-oriented studies should expand their foci to include second language-related variables (Wu, 2014) such as gender, socio-economic status, course and type of school.

The present study recognizes this as a gap in the discussions of computer-mediated communication (CMC) and aims to filling it. If these results could be confirmed, these would provide strong evidence for the school administration, curriculum planners, language instructors, students, parents and future researchers more insights on the feasibility of integrating technology into language teaching to promote language learning in response to the emerging needs of this knowledge society.

As a college language educator, the researcher would like to provide insightful and significant contributions to this knowledge body of the higher education institutions which will prepare the administration and the faculty members on the transition of the K-12 curriculum and implementation of the new curriculum on the higher education responding to the needs of the 21st century learning paradigm.

Hence, this study would like to address to what extent do respondents in the context of the four (4) higher education institutions in Zamboanga City use computer-mediated communication and its significant relationship with language proficiency in the productive skills; and to determine any significant difference in the respondents' CMC use in English learning and proficiency levels when data were grouped according to gender, course and type of school.

OBJECTIVE OF THE STUDY

This study attempted to determine the extent on the use of computer-mediated communication in language learning and its relationship with the English proficiency level in the productive skills among students of the selected higher education institutions. Specifically, it sought to determine the: 1) Extent

of use of the Computer-Mediated Communication (CMC) among students of the selected higher education institutions; 2) Respondents' proficiency levels in English productive skills in terms of speaking skill and writing skill; 3) Significant relationship between the respondents' extent of use of Computer-Mediated Communication (CMC) and their proficiency levels in productive skills; 4) Significant difference in the respondents' extent of use of Computer-Mediated Communication (CMC) when data are grouped according to gender, course, and type of school; and 5) Significant difference in the respondents' proficiency levels in productive skills when data are grouped according to gender, course, and type of school.

FRAMEWORK

This study is mainly anchored on the Ecological Perspective of Zhao & Frank (2003) as cited in Dinh (2005).

It deemed the Ecological Perspective of Zhao & Frank (2003) cited in Dinh wherein they provide a theoretical lens to look at the factors and interactions among the factors specifically affecting the learners' use of technology in learning the target language.

This framework considered the school where technology is integrated as "an ecosystem". In addition, the ecological perspective of technology use in the school context recognizes the school dynamics in technology use. They mention that the perspective takes into consideration the factors in relation to the "biotic components" of the school system such as the teacher, the student, the technician, the administrator as well as the government policy maker and the "abiotic components" such as technology itself.

On the other hand, Lier (2010) discussed the ecological approach which focused on the learning process, the actions and activities of teachers and learners, the multi-layered nature of interaction and language use, in all their complexity and as a network of interdependencies among all the elements in the setting, not only at the social level, but also at the physical and symbolic level.

More importantly, Kramsch & Steffensen (2008) highlighted the holistic approach which implies that language is not studied in isolated, self-contained system, but rather in its natural surroundings, for instance, in relation to the personal, situational, cultural, and societal factors that collectively shape the production and evolution of language.

Therefore, with the interrelationship of the variables used in this study, the researcher proposes key principles drawn from the literature and extends them as L2 learning system features:

1. The learning ecology is laid out with the learner's multi-sensory perception of direct aspect such as written and spoken language and indirect aspect of language use such as socio-cultural norms and the perceiving of self in relation to the environment
2. L2 learning in action and interaction using computer-mediated communication

CONCEPTUAL FRAMEWORK

This study focused on the extent of use of computer-mediated communication in language learning among sophomore students taking BSED/BEED and BS Info Tech courses from the selected higher education institutions in Zamboanga City.

The first box consists of the variable which pertains to the use of the computer-mediated communication of the respondents while the second box shows the level of proficiency in the productive skills of the respondents specifically in writing and speaking.

The double-headed arrow indicates the hypothesized significant relationship between the frequency use of CMC and language proficiency level of the respondents.

Furthermore, this figure also shows the significant difference of the CMC use and the language proficiency level of the respondents when data are grouped according to the intervening variables such as gender, course and type of school.

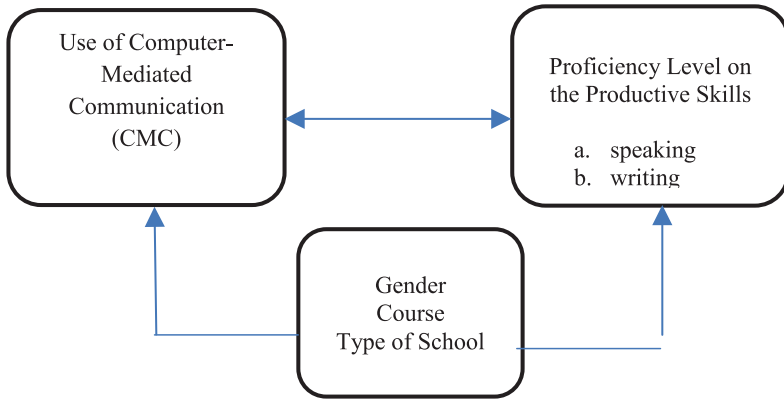See Figure 1 below which shows the interplay of the variables.

Research Paradigm

Figure 1. Interplay of the Variables

Research Hypotheses

Based on the conceptual framework and the statement of the problem raised in the first chapter, the study hypothesizes that:

1. There is a significant relationship between the extent on the respondents' use of computer-mediated communication (CMC) and their proficiency levels in English productive skills.
2. There is a significant difference in the respondents' extent of use of computer-mediated communication (CMC) when data are grouped according to gender, course and type of school.
3. There is a significant difference in the respondents' proficiency levels in English productive skills when data are grouped according to gender, course, and type of school.

METHODOLOGY

Research Design

The study employed the descriptive-correlational research design to explore on the significant relationship between the respondents' use of CMC in language learning and their language proficiency levels in speaking and writing. In the application of this design, the study focused on the three main steps. First, it

determined the respondents' extent on CMC use in language learning. Second, it measured their language proficiency levels in the productive skills on speaking and writing. Lastly, it established significant relationship between the two main variables, the respondents' extent of CMC use and their language proficiency levels in the productive skills mentioned earlier, the speaking and the writing skills.

This study was guided by the following steps: (1) Conceptualizing Problem and Formulating the Hypotheses; (2) Preparing the Research Instrument; (3) Testing the Validity and Reliability of the Research Instrument; (4) Securing of Research Ethics Clearance; (5) Seeking Permission to Conduct the Study; (6) Gathering of Data; (7) Analyzing and Interpreting the Data; (8) Preparing the Research Report; (9) Presenting the Research Report to the Panel; (10) Finalizing the Research Report.

Research Locale

The study was focused on the four higher learning institutions of Zamboanga Peninsula. One institution, Private A is located at La Purisima, Zamboanga City while three of them, Private B, Public A, and Public B are situated in R.T Lim Boulevard, Zamboanga City.

Population and Sampling

The study had a population of 917 sophomores from the selected HEIs in Zamboanga City. The four (4) schools were selected from the eighteen (18) HEIs in Zamboanga City using the following inclusion criteria:

a. Selected institutions are administered and regulated by the Commission on Higher Education (CHED).

b. Selected institutions are evaluated and recognized by the accrediting agencies such as the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), Inc. for public; while Philippine Accrediting Association of Schools, Colleges & Universities (PAASCU) for public.

c. Selected institutions are offering Information Technology and Teacher Education programs.

d. Selected institutions have been established for 100 years of operation for quality education.

The sophomores were chosen as the respondents of the study for the following reasons: First, the respondents were exposed to English classes for at least of three semesters of attendance from their entry. Second, the respondents' experiences in the use of CMC can be deliberated through the length of time they have spent in the institution.

In the determination of the sample size, Gay and Dienhl (1992) formula cited in Hashim (2010) was used. Gay and Dienhl consider 10% of the population as minimum sample size and require 20% for small population. In this study, 20% of the 917 population was taken using simple random sampling to give each sophomore student equal chance to be part of the study. This means 85(20%), 72(20%), 19(20%) and 22(20%) were be taken from the 418, 360, 41 and 98 sophomores of Public A, Public B, Private A and Private B institutions respectively.

Table 1. Distributions of the Respondents of the Study

Higher Education Institutions (HEIs)	Number of Respondents		
	Population (N)	%	Sample (n)
Public A	418	42.93%	85
Public B	360	36.36%	72
Private A	41	9.60%	19
Private B	98	11.11%	22
Total	917	100%	198

Table 2. Distributions of Respondents According to Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	FEMALE	125	63.1	63.1	63.1
	MALE	73	36.9	36.9	100.0
	Total	198	100.0	100.0	

Table 3. Distributions of Respondents According to Course

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NON - IT COURSE	136	68.7	68.7	68.7
	IT RELATED COURSE	62	31.3	31.3	100.0
	Total	198	100.0	100.0	

Table 4. Distributions of Respondents According to Type of School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	157	79.3	79.3	79.3
	Private	41	20.7	20.7	100.0
	Total	198	100.0	100.0	

Research Instrument

The study employed three (3) instruments: the Survey-Questionnaire on Computer-Mediated Communication (CMC) Use in English Learning, the Speaking Skill Test and the Writing Skill Test adopted from Tendero (2012).

A.   **Survey-Questionnaire on the Computer-Mediated Communication (CMC)Use in English Learning**

This survey-questionnaire was designed by the researcher to gather information on aspects related to the research questions number 1, 3, 4 and 5. In the introduction page, letter for the respondents can be found. Then, a background information needed for the study was filled-out by the respondents indicating gender (male or female), course (Information Technology (IT)/ Computer Science (CS) or Teacher Education), and type of school (private or public).It consisted of statements on the Computer-Mediated Communication (CMC) use of the respondents in English learning.

B. **Speaking Skill Test adopted from Tendero (2012)**

The picture-cued Speaking Skill Test (SST) consisted of three pictures for the respondents' speaking task. The first picture showed a business woman having a meeting with four executive-looking individuals. The second picture depicted a man and a woman in their mid-thirties shaking hands with an elderly man in their midst; lastly, the third picture showed a sailing yacht in a distance boarded by two persons. Each respondent was asked to invent a story using the three (3) pictures given. Each one was given three (3) minutes for the organization of thoughts in constructing a story and three (3) minutes for the delivery.

The participants were evaluated by three raters using the 5- point scale used by Tendero (2000) with the following criteria: coherence in thought and ideas, utilization of strategies to convey message, more information bits used, ease and naturalness of voice/intonation and overall story narration or projection. The score of 1 indicated for POOR, 2 for FAIR, 3 for AVERAGE, 4 for VERY GOOD and 5 for EXCELLENT. The highest possible score would be 25.

C. **Writing Skill Test adopted from Tendero (2012)**

The Writing Skill Test (WST) of Tendero (2012) was utilized to measure the speaking proficiency level of the students. After the respondents' oral narrative task, they were instructed to put into writing their stories. They were given a copy of the same pictures used in SST and an answer sheet to write down their stories in thirty (30) minutes. This was rated by the same raters using the same scoring sheet in SST except for item 4 on "ease and naturalness of voice/intonation" which is changed to " correct grammar and mechanics" in WST.

Validity and Reliability

The survey-questionnaire on Computer-Mediated Communication (CMC) Use in English Learning was subjected to the validation process by three (3) experts on the field of communication and information technology. Then, a pilot testing was implemented to thirty (30) sophomore students of an institution having the same characteristics with the target respondents for the study. Hence, the instrument for CMC use in English learning has its reliability coefficient of 0.814 at Cronbach Alpha.

Furthermore, the instruments for Speaking Skill Test (SST)with a reliability coefficient of .74 at alpha .05 using Kuder-Richardson formula 21 and the Writing Skill Test (WST) with a reliability coefficient of .83 at .05 level of significance of Tendero (2012)have not undergone the validation and pilot testing anymore.

Data Gathering Procedure

Before the actual gathering of data, the researcher applied for a research ethics clearance at the College of Liberal Arts Ethics Review Committee Office. As soon as the ethics clearance was issued, the researcher sought permission from the deans of the Teacher Education and Information Technology Department/ College of the selected higher education institutions regarding the conduct of the research. Upon approval, the researcher asked for appointment with the teachers concerned for the administration of the Survey-Questionnaire on Computer-Mediated Communication (CMC) Use in English Learning, Speaking Skill Test (SST) and Writing Skill Test (WST) to the respondents of the four (4) HEIs.

On the day of the actual administration, the researcher informed students about the study and its purpose. The four institutions with a total of one hundred ninety-eight (198) respondents were the target for this study.

A consent form was requested to be signed and a survey-questionnaire was distributed to fill-out the respondents' profile and to indicate their responses on

the Survery-Questionnaire on CMC Use in English Learning. It consisted of twenty-five (25) item test which completed in three (3) minutes.

Subsequently, the Speaking Skill Test (SST) and the Writing Skill Test were administered. The data collected from the survey-questionnaire, oral and written tests were tabulated, analyzed and interpreted according to the sequence of the problems raised in the study.

Statistical Treatment

1. To answer questions number 1 and 2, descriptive statistics like mean, percentage and standard deviation were used to determine the extent of use of the Computer-Mediated Communication (CMC) in English learning among students of the selected higher institutions in Zamboanga City and to determine the respondents' English proficiency levels in their productive skills such as speaking and writing skill.
2. To answer question number 3, Pearson Correlation Coefficient (Pearson r) was used to find out the relationship between the respondents' extent of use of Computer-Mediated Communication (CMC) in English learning with their proficiency levels in productive skills.
3. To answer questions number 4 and 5, T-test was used in finding out the significant difference in the respondents' extent of use of Computer-Mediated Communication (CMC) and respondents' proficiency levels in productive skills when data are grouped according to gender, course, and type of school.

RESULTS AND DISCUSSION

Respondents' Extent of Use of Computer-Mediated Communication

Respondents from the four higher learning institutions are average users of the computer-mediated communication in English learning by utilizing MSWord, MS PowerPoint, online library resources, and others. It has found out that respondents' most interesting activities in computer-mediated communication are downloading music and videos, surfing online for information to support English learning and surfing online for pleasure. The least interesting activities in computer-mediated communication among respondents are blogging and teleconferencing.

On the Proficiency Level on the Productive Skills

Respondents' proficiency level in their productive skill resulted to be "good," that is, being rated as "good" in speaking skill as well as "good' in writing skill in terms of English learning.

On the Correlation Between Computer-mediated Communication Use in Language Learning and Proficiency Level in the Productive Skills of the Respondents

Respondents' computer-mediated communication (CMC) use in English learning correlated with their proficiency level in the productive skill. However, the correlation was low – meaning, CMC use in English learning has a minimal impact on the respondents' proficiency level in their productive skills because they are average users of CMC thereby giving less influence or impact on their proficiency level.

On the Differences in the Respondents' Extent of Use of CMC by Gender

There is a significant difference in the respondents' extent of use of computer-mediated communication between male and female. The data reveal in this study that male and female are different in terms of their use of computer-mediated communication.

On the Differences in the Respondents' Extent of Use of CMC by Course

There is no significant difference in the respondents' use of CMC in English learning between IT related and non IT related courses. This implies that respondents' course does not influence their use of CMC. This expresses that regardless of the course that individual takes, it has nothing to do with the extent on the use of CMC in English learning.

On the Differences in the Respondents' Extent of Use of CMC by Type of School

There is a significant difference in the respondents' extent on the use of CMC between the types of school. This implies that the type of school in which the respondents belong influence their use of CMC in English learning.

This study has supported the findings of Abbas and Abbas which stated that there was a significant difference between the two types of universities with regard to the availability of computers and the amount of ICT training and use.

On the Differences in the Respondents' Proficiency Levels in the Productive Skill by Gender

There is no significant difference on the respondents' proficiency levels in the productive skills by gender. It means that gender is not a contributing factor for the respondents' proficiency.

On the Differences in the Respondents' Proficiency Levels in the Productive Skill by Course

Results showed that there was a significant difference in the respondents' proficiency levels in their productive skills between courses. This indicated that Non-IT related course had a higher mean compared to IT - related course. This implies that Non - IT course respondents are more proficient than IT course respondents. Thus, this result demonstrates that course is a contributing factor for a student to become proficient speaker/writer or not.

On the Differences in the Respondents' Proficiency Levels in the Productive Skills by Type of School

There was a significant difference in the respondents' proficiency levels in the productive skills between the two types of school. It revealed that the type of school is a contributing factor influencing the proficiency level of the students. This further showed that the private institution has a higher mean score than public institution.

CONCLUSIONS

After a thorough analysis of the findings of the study, it can be logically inferred that the respondents are average users of the computer-mediated communication in their English learning which resulted to an average proficiency level in their productive skill. Hence, it can be construed that the CMC use in English learning has a little impact on the proficiency level of the respondents.

Furthermore, the use of the respondents of computer-mediated communication in learning English can be influenced by their gender while their courses do not influence them at all. However, respondents' course has greatly signified a contributing factor to their proficiency levels in speaking and writing while gender is not at all.

Finally, the school of the respondents can greatly influence their use of computer-mediated communication in language learning and their proficiency

levels in speaking and writing. Therefore, school has a very significant role on the success of the students by exposing them to CMC use which may result to an increased English proficiency levels. School has the influence to train language teachers and provide ICT in the classroom as instructional aid for better result of performance of both parties. As pointed out by Fu (2013) that ICT being applied successfully in instruction, learning, and assessment can be considered a powerful tool for educational change and reform.

RECOMMENDATIONS

School Administrators support and monitor the implementation of the ICT policy made by the higher authorities since this is being advocated by the Department of Education and Commission on Higher Education with the local and national government. They should initiate trainings for language instructors once or twice a semesterfor reinforcement of skills and knowledge exploration on how language can be used through CMC activities in the class. Since, administrators are the ones who can advocate for CMC use to create impact and produce meaningful teaching-learning environment to students.

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