The Relationship between Computer Mediated Communication (CMC) and Willingness to Communicate (WTC)

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ABSTRACT: Computer-Mediated-Communication (CMC) and Willingness-to-Communicate (WTC) have been paid thorough attention and been put to numerous investigations in L2 acquisition literature. What seems lacking is a study into how these two concepts are related. The present study investigates the role of CMC in promoting learners’ WTC both inside and outside the classroom. Among other factors, it was found that learners’ feel for privacy and their need to convey their emotions played major roles in their judging about CMC, their willing to employ CMC and consequently their WTC. It was concluded that introducing CMC into language classrooms as a means to communicate in L2, both inside and outside the classroom, promotes learners’ WTC as far as it guarantees learners’ privacy and assures them of effectiveness of CMC in conveying their emotions and puts them at a safe position in their computer-base contacts as a means to facilitate their emotional revelations.

Keywords: Computer-Mediated-Communication (CMC), Willingness-to-Communicate (WTC).

INTRODUCTION

There have been two important concepts in the area of second language learning and teaching which have received almost thorough attention. What seems of high importance is an investigation of the relationship between these two concepts i.e. Willingness to Communicate (WTC), and Computer-Mediated Communication (CMC). A brief definition for both terms is given and the potential areas of their relationship are investigated. This study attempts to investigate how CMC is effective in promoting learners’ WTC.

Willingness to communicate

McCroskey (1992, cited in Hashimoto, 2002) proposed the concept of “willingness to communicate” (WTC), which refers to the “individual’s personality-based predisposition toward approaching or avoiding the initiation of communication when free to do so” (Hashimoto, 2002). Yashima, Nishide and Shimizu (2004) hold that WTC is a conceptual model in which L2 proficiency is not considered as a goal to be achieved through L2 learning, but rather is considered as a means to gain ‘interpersonal/intercultural’ goals. According to Leger and Storch (2009), early models of WTC included two main variables: perceived communication, and communicative anxiety. Based on this model it is predicted that high levels of perceived competence together with low levels of anxiety results in higher WTC and a higher probability of communicative interactions in L2. Later MacIntyre (1998, cited in Leger & Storch, 2009) introduced a multilayer pyramid model of WTC, which distinguishes stable enduring influences (such as personality factors) and situation specific influences determining communicative behavior. According to Hashimoto (2002), WTC was introduced with reference to L1 communication. MacIntyre (1998) proposed the term for an L2 situation and introduced variables like social and individual context, affective cognitive context, motivational propensities, situated antecedents, and behavioral intention as interrelated variables influencing WTC in L2 (Hashimoto, 2002). Hashimoto (2002) suggests a positive relation between willingness to communicate and motivation, and L2 communication

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frequency. MacIntyre (2007) proposes a WTC pyramid model which is based on a proximal-distal continuum of L2 constructs. The layers introduced are: intergroup climate and personality; intergroup attitudes, social situation, and communicative competence; interpersonal motivation, intergroup motivation, and self-confidence; desire to communicate with a specific person; state communicative self-confidence; willingness to communicate; and finally L2 use (cited in Leger & Storch, 2009). A review of literature in CMC would reveal that employing computers as a mediator in L2 communications serves most of the constructs presented in this pyramid, and leads students to L2 use.

**Computer mediated communication and WTC**

According to Blake (2009) in CMC-enhanced learning context, interaction is defined as: interacting with teachers, other students, or native speakers via online textual, audio, and/or video exchanges. Garrett (2009) maintains that the two major reasons for the popularity of CMC have been the growing interest in aspects of SLA which emphasize the role of sociolinguistics, discourse analysis, and pragmatics and also the massive increase in ‘consumer communication technologies’. Wellman (1997, cited in Freiermuth, 2006) emphasizes the role of CMC in reducing social barriers since it underplays the ‘social cues’ of participants through focusing on the content of the message rather than on the senders’ and receivers’ attributes. Such a reduction of the influences by social cues, CMC provides the opportunities for a wider range of participants and participation. Lee (2007) also emphasizes this fact through contending that: According to this “cues-filtered-out” model, which dominated early CMC research, the paucity of sociocontextual cues has the potential of liberating individuals from normative concerns and social constraints that typically regulate everyday interpersonal encounter, leading to uninhibited behaviors.

Goertler (2009) mentions some benefits of employing CMC in language teaching such as (a) providing opportunities for authentic input through having access to interlocutors who are not available in traditional face-to-face classroom-based learning contexts, (b) flexibility in determining the time and location of the interaction, (c) helping learners in achieving computer literacy to be part of online community. Goertler (2009) also mentions some benefits of CMC for teachers such as (a) experiencing efficient teaching, (b) supplementing teaching materials, (c) providing students with authentic and current materials, (d) creating a student-centered creative environment, and finally, (e) helping learners in becoming computer-literate.

What is related to WTC is the fact that, as emphasized by Goertler (2009), CMC has positive effects on learners’ attitudes toward language learning, and as a truism positive attitudes contribute to WTC. Jiang, Bazarova, and Hancock (2011) have a focus on the disclosure-intimacy characteristic of CMC, and maintain that anonymity facilitates intimate disclosure. They maintain that CMC results in higher intimate self-disclosure compared to face-to-face interactions. This fact has been also emphasized by Kanayama (2003, cited in Xie, 2008) who finds out that members of the online community are willing and are encouraged by other members to reveal their personal information about their past experiences and present conditions through CMC. Lafford (2009) maintains that through CMC and extending learners’ use of familiar technology to L2 environments, they are empowered as and provided with the opportunity to promote their ‘sense of agency and authorship’ and they are also supported in constructing their identities as proficient speakers of the target language. Chapelle (2004, cited in Satar & Ozdener, 2008), also enumerates some of positive aspects of CMC like (a) practicing in other contexts, (b) negotiation of meaning and focus on form in online communication, (c) the development of syntactic, pragmatic, and intercultural competence, and finally it is contended that (d) online communication is potentially a transformative support in the sense that each learner, based on his/her knowledge and agency, can employ in order to construct an identity through being the user of L2 outside the limits of the classroom. Smith (2003) views CMC from an interactionist perspective in which learners have more processing time when reading and typing message, when the feel for a natural conversation is preserved similar to that of oral face-to-face oral interaction. This is compatible with an interactionist perspective since through CMC learners elicit modified input from one another, are encouraged to make modifications to their own output, and receive beneficial feedback on their target language use, which makes them focus their attention on their problematic utterances. Freiermuth (2006) maintains that online chat (as one form of CMC) enhances willingness to communicate for some reasons:

1. It removes social rules found in face-to-face interactions.
2. Students become less conscious about their inabilities in the target language.
3. Errors committed by learners do not result in social penalties.
4. Pronunciation problems as barriers to communication relevant, thus students can better focus on the interaction task.
5. As a result students can feel relaxed in solving language exercises without being embarrassed.

Byrnes (1996, cited in Ganglewski, 1999) maintains that the use of technology such as internet alters the attention from teaching to learning and thus defining new roles for teachers and learners. Patrikis (1995, cited in Ganglewski, 1999) also maintains that computer-based learning renders learning process as individual and puts
the responsibility of what and how of their learning on themselves. Such responsibility induces the willingness of students to take the control of their learning and promotes their capacity to provide answers since they feel the necessity to react to curiosity and desires. Ganglewski (1999) maintains that since computers provide a less immediate or controversial environment, students will be more willing to express their opinions outside the classroom, and that “the less in your face setting” decreases the embarrassment which reduces mistakes and promotes learners’ participation on the part of fairly reserved students. The present study tries to find out what aspects of CMC are the most effective in learners’ CMC.

METHODOLOGY

Ten homogeneous female learners from an English language institute were randomly selected and were given two questionnaires to answer. The questionnaire used to elicit learners’ WTC is the questionnaire designed by McIntrye, as the main figure who has employed the concept of WTC in language learning, together with MacIntyre, Baker, Clement and Conrod (2001). This questionnaire has been proposed for French language learners and I have adapted it to test WTC for learning English inside the classroom and outside the classroom. One part of the questionnaire investigates WTC inside the classroom and the other part WTC outside the classroom each one comprised of speaking, reading, writing and comprehension sections. According to MacIntyre, Baker, Clement, and Conrod (2001) this WTC questionnaire is internally consistent with a Cronbach alpha coefficient reported for each section of the questionnaire. WTC inside the classroom includes speaking (8 items, \( \alpha = 0.95 \)) comprehension (5 items, \( \alpha = 0.83 \)), reading (6 items, \( \alpha = 0.86 \)), and writing (8 items, \( \alpha = 0.88 \)). WTC outside the classroom includes speaking (8 items, \( \alpha = 0.89 \)), comprehension (5 items, \( \alpha = 0.90 \)), reading (6 items, \( \alpha = 0.93 \)), and finally writing, (8 items, \( \alpha = 0.96 \)). In this study the reliabilities for WTC inside the classroom (27 items) is 0.75 and for WTC outside the classroom (27 items) is 0.81. It is worthy to mention that for WTC questionnaire in general, inside and outside WTC considered together, the reliability in this study is 0.86. The questionnaire for CMC has shown a reliability of \( \alpha = 0.63 \). In order to ensure full understanding and prevent any misunderstandings, exact the meaning of each section of the questionnaire is explained to the learners. A Cronbach Alpha coefficient is used in order to determine which item in CMC questionnaire correlates the most with WTC. At the end a paired-sample t-test is performed in order to find, if any, significant difference between learners’ attitudes towards CMC and their total WTC, their WTC inside the classroom and outside the classroom.

RESULTS

The statistical results for correlation between CMC questionnaire and WTC in general are presented in Appendices E, F, and G. According to the following table the highest correlation is seen between the following CMC items and WTC in general and inside and outside WTCs.

Table 1. Pearson Correlation for WTC, Inside and Outside.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Q3</th>
<th>Q5</th>
<th>Q6</th>
<th>Q18</th>
<th>Q20</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTC Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.690*</td>
<td>-</td>
<td>-</td>
<td>0.741*</td>
<td>-</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.027</td>
<td>-</td>
<td>-</td>
<td>0.014</td>
<td>-</td>
</tr>
<tr>
<td>N</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>WTC Inside</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>0.671*</td>
<td>-</td>
<td>-0.733*</td>
<td>-</td>
<td>-0.744*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.34</td>
<td>-</td>
<td>0.16</td>
<td>-</td>
<td>0.14</td>
</tr>
<tr>
<td>N</td>
<td>10</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>WTC Outside</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-</td>
<td>0.636</td>
<td>-</td>
<td>0.780**</td>
<td>-</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-</td>
<td>0.048</td>
<td>-</td>
<td>0.008</td>
<td>-</td>
</tr>
<tr>
<td>N</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>10</td>
<td>-</td>
</tr>
</tbody>
</table>

*The significant correlation

**The highest significant correlation

Based on data obtained and presented in Table 1, the highest correlation can be seen between question number 18 and WTC outside the classroom which means that the significance level of \( p < 0.05 \), there is a strong positive correlation between the two variables, \( r = 0.78 \), \( N = 10 \), \( p < 0.05 \). Item number 18 in the CMC questionnaire estates...
that: It is unlikely that someone might obtain personal information about you from the CMC message. On the other hand, learners’ willingness to communicate outside the classroom is highly dependent on learners’ attitudes toward the confidentiality of their personal information in CMC, which means that CMC enhances their willingness to communicate when they feel secure in their virtual communications. For total WTC, there is a significant positive correlation between item No. 3 and total WTC, r=0.69, N=10, p<0.05. Item number 3 in CMC says that CMC messages convey feeling and emotion. On the other hand CMC influences learners’ WTC to the extent that they feel they can convey their emotions and perceive the other parties emotions and feelings in CMC. There is another fairly strong correlation between item 5 and WTC outside the classroom. Q5 runs as: CMC messages are impersonal.

There is a fairly strong correlation between Q5 in CMC and WTC outside the classroom, r=0.69, N=10, p<0.05. Results obtained are highly compatible with answers given to questions in the interview carried out. Paired sample t-tests show that there is a significant difference between learners’ WTC inside the classroom (M=78.5, SD= 8.52) and their CMC (M=70.33, SD=8.52), t(9)=−3.2, p<0.05 (two-tailed). The eta squared statistics (.53) indicating a large effect size. The following table (table 2) presents the statistical information.

<table>
<thead>
<tr>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMC</td>
<td>70.33</td>
<td>10</td>
<td>6.164</td>
<td>1.949</td>
<td>-3.208</td>
<td>9</td>
</tr>
<tr>
<td>WillinhIN</td>
<td>78.50</td>
<td>10</td>
<td>8.528</td>
<td>2.697</td>
<td></td>
<td>0.011</td>
</tr>
</tbody>
</table>

**DISCUSSION AND CONCLUSION**

What has been found through statistics is highly in keeping with what students contended during classroom discussions and interviews. WTC is in high correlation with learners’ belief that CMC messages can convey their feelings. If learners consider CMC as a good strategy to help them express their feelings, generally their WTC will increase. This is compatible with some statements by students during classroom discussions such as: Learner 1: Facial expressions and body language are good help in face-to-face (F2F) communications. CMC does not provide such advantages to get your message across.

Learner 2: It is better to use F2F communication for expressing emotions and feelings and use CMC in more serious tasks.

Learner 2: It is easier to reveal oneself in F2F conversation. In CMC you must be afraid of scams.

Learner 3: There are reasons to be embarrassed in F2F for which I do not feel ashamed in CMC.

Learner 4: It is easier for shy people to be more extroverted through CMC rather than F2F.

Learner 4: CMC reduces one’s stress and helps him/her to be more open.

Learner 2: Since one cannot show his/her emotions, one needs to use circumlocution and produce more in order to be understood.

What such contentions on the part of learners reveal is the fact that the lack of emotional aspects in CMC is the main barrier in their willingness to communicate in the foreign language. What is suggested is that more developed computers which are designed to be used (as the main focus in CALL) should be directed toward more user-friendly programs so that learners feel more at home in their conveying and receiving their messages in a more authentic situation. There needs to be some improvements for the shortcomings of CMC such as providing situations in which more natural facial expressions (much better than emoticons) and body language are included. The more learners think that CMC reduces their stress and their fear for being embarrassed, the more open and willing they will be in communications and establishment of mutual relations.

The second aspect of WTC which is emphasized by learners in regard to WTC outside the classroom is the confidentiality of their personal information and privacy. Based on the correlations found, there are strong correlations between WTC outside the classroom and items number 3 and 18. According to item 3 CMC messages are impersonal, and based on item 18, it is not likely that someone might obtain personal information about you from CMC. Such results are compatible with learners’ contentions who have claimed that:

Learner 1: It is easy to lie to others in CMC.

Learner 2: Scams are lurking to steal our information.

Through feeling more secure in CMC learners promote their WTC, but what is detrimental to such a relaxed feeling is that their privacy may be bothered and they may face unpleasant consequences. By ensuring that their privacy is revered and respected in CMC, learners are more likely to promote their WTC, mostly outside the classroom, and are more eager to participate in discussions and activities and put their linguistic knowledge into immediate use in the real world. What is more, CMC helps learners to promote their computer literacy which is necessary if one is to take advantage of computers to have access to native speakers from other countries. Other contentions made by learners are that:
Learner 1: CMC makes us think and talk in English.
Learner 2: We can polish our knowledge and know about our mistakes without feeling embarrassed.
Learner 3: CMC provides you with time to correct your mistakes and ask for clarification, thus you do not feel ashamed for your mistakes even if they happen.
Learner 4: When communicating via CMC, you are unconsciously learning language.

All these contentions put emphasis on CMC as a good strategy in learning English. Receiving feedback from others without feeling embarrassed enhances one’s willingness to communicate since it lowers one’s stress and they are effective impersonal tools in support of learners’ confidence in setting forth their ideas and opinions.

The last point is that among total WTC, WTC inside the classroom, and WTC outside the classroom, only one of them shows significant difference from CMC, i.e., WTC inside the classroom (WTCIN). Considering the fact that no item in CMC correlates with WTCIN it can be claimed that CMC mostly promotes WTC outside the classroom. The claim is that positive attitudes toward CMC promotes one’s WTC outside the classroom and encourages him/her to put what he knows in real world practice. When having learners who can communicate in real world context is of critical important in second language teaching, it seems necessary to put more emphasis the role of CMC in English educational programs in order to obviate one of the main shortcomings of language teaching programs, i.e., communicating through one’s L2 in real world situations.

**Pedagogical implications**

As far as confidentiality is the major concern for language learners in their computer-based interactions, the area of CALL (computer-assisted-language-learning) is responsible to promote the sense of security in language learners who are eager to employ computer as a medium of interaction. It seems that when learners feel at ease in revealing themselves in CMC, their willingness to communicate in real world situations increases, as if they have learnt how to be open toward others (thus be more sociable) and this enhances their opportunity of learning the language, a fact supported by interactionists, constructivists, and advocates of Vygotsky’s ZPD. Through teaching learners how to use computers in their interactions mostly in the form of L2, and making them assured of the fact that their personal information is not accessible by others only if they observe certain rules, learners’ willingness is increased to employ their L2 knowledge in the cyber world and this, as results show, consequently promotes their courage to use their L2 in real world situations. The other important factor that contributes to learners’ general WTC is the amount to which learners believe CMC provides them with an opportunity to convey their emotions and feelings. On the other hand learners are willing to communicate as far as they are able to send and receive emotional cues to and from their interlocutors. What can be claimed is that although technically it is less easy for learners to convey their emotions and feelings via CMC, by providing more confidentiality learners feel much freer to reveal themselves without being worried about unexpected embarrassment. This is quite in keeping with the former mentioned conclusion which said that through securing learners’ confidentiality in CMC their WTC outside the classroom increases. Through CMC learners are advanced in having the opportunity to reveal themselves without being afraid of losing face. Through introducing CMC into language courses, it is quite possible to lower some emotional barriers in learners, and to help learners in uncovering emotions they never had the chance to reveal even through cumbersome and painstaking attempts exerted within educational environments.

All in all, introducing CMC into language classrooms as a means to communicate in L2, both inside and outside the classroom, promotes learners’ WTC as far as it guarantees learners’ privacy and assures them of the effectiveness of CMC in conveying their emotions and puts them at a safe position in their computer-base contacts as a means to facilitate their emotional revelations. These findings are quite in keeping with Jiang, Bazarova, and Hancock’s (2011) findings who maintain that anonymity facilitates intimate discourse, and also with those of Kanayama (2003, cited in Xie, 2008). Such conclusion calls for more research in the area of CALL in order to enhance the quality of their programs in regard to securing private transactions and their capability of communicating not only factual but also emotional components of L2 transactions.

**REFERENCES**