

# Examining the Usefulness of Computer-Assisted Language Learning among ESL Learners

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## ABSTRACT

*With the advent of technology, there have been various changes in every field, including education. For the last few decades, the use of Computer-Assisted Language Learning (CALL) has linked people across different linguistic, geographic, and cultural boundaries, altered human-to-human communication, and transformed discursive and linguistic practices. For second/foreign language learners, digital technology offers full-time access to a broad range of platforms for interaction with native speakers outside the classroom. The focus of this study is to gain some theoretical perspective on computer-mediated communication by reviewing the previous studies in this field. It also investigates the advantages and challenges of CMC in relation to second language learning.*

**Keywords:** CALL, Second Language, Language Learning, Technology and ELT.

## Background

In recent years, technology has become more efficient and accessible. It is frequently developing and adapting to changes. The Internet has removed the barriers of communication that previously existed due to physical boundaries. The invention of computer technology has generated various opportunities for education with its potential and value for strengthening the learning of second/foreign languages. Although we may argue that new ideas about the use of technology create innovative educational models and learning environments, effective arguments and evidence are still difficult to find in the established research area. While there has been considerable discussion in literature regarding the consequences of the use of technology in second or foreign language learning, problems that seem to be

worthy of investigation are those existing anecdotal research findings about the specific technology that turned out to be best for language learners under any given circumstances. We may find huge and a growing number of studies on computer-integrated language education, but it is not easy to reach a comprehensive and convincing generalisation for all technology-related language teaching and learning, since there are still several variables that need to be considered when the application of technology takes place in a real-life educational setting. Specifically, we need to assign control groups for comparisons, for instance, analysing to what degree the technology works better when students are placed in a position that allows them to engage actively in a strategy practice task, or in a situation where learners come from various technical backgrounds or with

different affective levels and have to work together in order to develop the designated project.

Based on the belief that computer technologies promote interactive learning and provide learners the depth and richness of authentic materials, numerous language teachers have started to favour computer-assisted teaching since the late 1980s. Teachers are now eager to use any technology-based application for teaching language to increase the potential for language development. The effect of using technology is that it also compels language teachers to expand the critical skills necessary to assess technology and its application in the context of second/foreign language learning.

Computer-assisted language learning (hereafter referred to as CALL) is a widespread environment that has changed the way of our everyday life, work, and learning. It is a tool that helps us communicate with people all around the world. As stated by Mahdi (2014), “CALL activities can be asynchronous, i.e., in the form of writing emails, or posting responses to a discussion board online, or can be virtual synchronous conversations held in chat rooms, and so on. The developers in computer technology have created new opportunities for language learning that cannot be found in traditional classrooms. Many environments have been introduced to enhance language learning. One of these is CMC, or computer-mediated communication. CMC can be broadly defined as human communication via computer (Higgins, 1991). It involves interaction between humans using computers to connect

to each other and generally refers to any communication pattern mediated through the computer (Metz, 1994).” The spread and emergence of computer-mediated communication (CMC) has linked people across different linguistic, geographic, and cultural boundaries, altered human-to-human communication, and transformed discursive and linguistic practices.

With the help of global networks and digital technology, it has now become much easier to communicate with people belonging to other language backgrounds, allowing language contact on a scale never seen before. These new technologies have transformed the way people learn, practise, and use languages. For second/foreign language learners, digital technology offers full-time access to a broad range of online platforms for interaction with native speakers outside the classroom. Such interactions in online spaces also have the power to reinforce the L2 classroom, because L2 practices simultaneously reduce the artificial nature of second/foreign language learning in the traditional classroom and emphasise the importance of second/foreign language learning in the 21st century.

The focus of this study is to gain some theoretical perspective on computer-mediated communication by reviewing previous studies in this field. Further, it investigates the advantages of and constraints in CMC in relation to second language learning.

### **Previous Studies on CMC**

The application of CMC in language learning has been studied in several journal articles, books, and conference proceedings. Some

attempts were made to review this research. Cole, Beam, Karn & Hoad-Reddick (1992) gave over 400 references with regard to CMC, but only about 60 of them were empirical studies. Romiszowski & Mason (2004) reviewed more than 100 research articles that were published from 1996 to 2003. Their focus was on the recent development in research on asynchronous text-based CMC. Wallace (2003) reviewed more research articles to analyse the interaction among teachers and learners in higher education. Luppisini (2007) reviewed 170 research articles shortlisted from 78 journals to study the recent growth in CMC research in educational settings.

A significant amount of research has been carried out on CMC with different interests in second language learning. The results are mostly favourable, with various researchers stating that CMC provides bigger and more equal opportunities for learners' participation (Kelm, 1992; Sullivan & Pratt, 1996) since students interacting in CMC are less afraid of committing errors and are less compelled by oral rules such as turn-taking. Teachers seem to have less authority and learners' (less motivated, even shy, and typically marginalised) anxieties in L2 communication are minimised (Chun, 1994; Kern, 1995). Students also participate actively in expanding their discourse skills and communicative competence than is generally found in regular classroom discussions (Chun, 1994). Besides the increased participation of students in the CMC context, they produce more texts than in a normal classroom within the same time duration. The quality of the texts is better, as they are represented by more refined ideas

and complex and longer sentences (Chun, 1994; Kern, 1995; Kelm, 1992). Other merits of CMC include more time those learners have to improve and develop their comments. In addition, there is motivation of a team spirit among students and enhanced confidence in language practice. As there is no time constraint, they might use the time and effort to convey themselves in the target language, instead of taking the easy way out by using their mother tongue (Chun, 1994).

The study on CMC shows that it has some disadvantages as well. Limitations of using synchronous CMC include slower speed in comparison to speaking, too direct or confrontational a style, loss of teacher control, loss of coherence in discussion of a topic, necessity of nonverbal communication, and the need for learning a new set of turn-taking skills (Salaberry, 1997). Overall coherence, stylistic improvement, formal accuracy, consensus, and reinforcement of standard discourse conventions are goals which are not well fulfilled by synchronous CMC (Kern, 1995). Weisband (1992) also stated that it was harder to achieve agreement in online communication than in face-to-face discussions; in other words, electronic interaction reduces convergence and conformity (Sproull & Kiesler, 1991). Another feature of CMC that could hamper cooperative learning is the presence of hostile language called "flaming", which apparently takes place due to the same attributes that promote free expression, and which can have adverse effects on classroom interaction (Sproull & Kiesler, 1991). We shall discuss the merits and demerits of using CMC in the following sections.

## **Advantages of Computer-Mediated Communication**

Most of the studies carried out since the 1990s have given a wide range of prospective benefits of CMC in both national and international networks, on language learning processes. Practitioners and scholars have emphasised how CMC can promote authenticity by allowing learners to come into contact with an authentic audience and by encouraging them to interact on topics that are significant to their own lives. Many reports have suggested the fact that electronic communication brings about more equality in learner participation than face-to-face classroom discourse, as well as higher levels of participation, both in quantitative and qualitative terms (Guarda, 2012).

Motivation is definitely one of the primary dimensions on which research into CMC has focused since the beginning. Increased motivation is believed to be the fruit of exposure to encourage and provide authentic learning contexts (Kern, 1996; Thorne, 2008), of teamwork in a less-threatening atmosphere (Beauvois, 1998; Blake & Zyzik, 2003), and of learners' perceived thought of controlling their own learning (Warschauer, 1996). Freedom in the learning process, that is autonomy, is another component that seems to be encouraged by stimulating individual thought processes through social interaction with other learners or native speakers, CMC writing, or discovery practices, as well as by promoting learners to become accountable for their own learning. Recommended to aid L2 learners improve their language skills, computer-mediated communication also provides evidence for real language and

pragmatic development (e.g., Belz & Kinginger, 2003; Thorne, 2003). In spite of the positive results that emerge from these researches, some practitioners still remain sceptical about the presumption that CMC interaction can naturally lead to better language skills. Scholars such as Lee (2006) and Tudini (2003), for example, recommend that enthusiastic reports be balanced by research that examines the long-term consequences of CMC on language development, to make sure whether the mode of interaction can affect the acquisition process in a considerable way. From a different perspective, researchers such as Ware and O'Dowd (2008) express that, in global CMC practices, grammatical accuracy is usually seen as secondary to the real communicative goals of interaction, so that it's potential for enhancing linguistic correctness fades into the background. These observations appear to suggest the significance of developing impromptu activities to help students focus on form within the context of online collaboration, in order to link reflection and metalinguistic knowledge with communication effectiveness and negotiation of meaning. As stated by Ware and Perez Cañado (2007), online collaborative activities should focus on language, as they provide the benefit of working with texts originally produced by the students themselves. Hence, interest and metalinguistic reflection can be encouraged through genre transformation and translation practices, direct examination of the language produced in an online setting and – particularly in contexts in which students interact with native speakers or more skilled L2 users – peer feedback on a broad range of

areas of language use, such as stylistic usage and grammar choices. Practical examples of form-focused tasks set up as part of CMC practices are suggested by Levy and Kennedy (2004) and Belz (2006).

### **Constraints of Using CMC**

While most study reviews of CMC have been favourable, there are many challenges that have to be taken into account when applying CMC in language learning. These include: (1) access and logistics, (2) computer literacy, and (3) privacy and security. Regardless of the developments in computer and Internet access, teachers' and students' computer literacy may be restricted, mainly in minority and low-income communities. This can be viewed as a roadblock for implementation of CMC. Another roadblock for CMC activity implementation is computer access, particularly at the school level. Even when computers are accessible, slow or unstable Internet connections, blocked websites, and lack of extra hardware and software may make the use of CMC for language learning purposes impossible (for example, absence of headsets and microphones). Several other logistical issues make CMC usage inconvenient at times (such as malfunctioning computers, broken links on websites, location of computer labs on campus, and so on). Moreover, activities involving individuals of the target community can be a logistical nightmare. Scheduling problems, time differences, and unreliable target language participants are just a few of these issues.

While logistical issues may obstruct an individual teacher from administering CMC activities, issues related to privacy and

security may prevent the entire teaching staff at an institution from using such tools. An institution may have some policies in regard to cloud computing or copyright that restrict the integration of some CMC tools in the classroom. Besides, while CMC networks provide the opportunity to engage with people of the target community, it is hard, if not impossible, to control with whom the students are involved and what form that involvement takes.

### **Conclusion**

As new technologies advance, so do the implementation alternatives for language teaching. This paper has shown how these new and emerging CMC technologies can be beneficial in the language classroom to increase communication opportunities, and stimulate students. New CMC technologies can support language learning for students by bringing them closer to the way native speakers use the language to interact with each other. Attempting to reach out to native speakers' modes of communication and establishing networks may be one way of strengthening learners' interests in second/foreign languages. Instructors often fear the application of technology because they think they have to reshape their teaching. Nonetheless, most face-to-face communicative tasks can be at least as successful, if not more successful, in a CMC environment.

Besides the many benefits of using CMC in language learning, there are certain constraints to it as well, which have been discussed in the paper. These limitations can be taken care of through proper teacher training, development of learner literacy,

improving the availability of the required resources, and task design. In order to garner the potential benefits of CMC, teachers need to design tasks that are suitable for their learners, which are well-organised into the overall syllabus and which are evaluated meaningfully.

## References

- Beauvois, M. H. (1998). E-Talk: Computer-assisted classroom discussion – Attitudes and motivation. In Swaffar, J., Romano, S., Markely, P. and Arens, K. (eds.). *Language learning online: Theory and practice in the ESL and L2 computer classroom*, 99-120, Austin, Labyrinth Publications.
- Belz, J. A., Kinginger, C. (2003). Discourse options and the development of pragmatic competence by classroom learners of German: The case of address forms. *Language Learning*, 53(4), 591-647.
- Belz, J. A. (2006). At the intersection of telecollaboration, learner corpus analysis, and L2 pragmatics: Considerations for language program direction. In Belz, J. A. and Thorne, S. L. (eds.). *Internet-mediated intercultural foreign language education*, 207-246, Boston, Heinle & Heinle.
- Blake, R. J., & Zyzik, E. (2003). Who's helping whom?: Learner/heritage speakers' networked discussions in Spanish. *Applied Linguistics*, 24(4), 519-544.
- Cole, L., Beam, M., Karn, L., & Hoad-Reddick, A. (1992). Educational computer-mediated communication: A field study of recent research. Unpublished paper, Toronto, Canada: Ontario Institute for Studies in Education.
- Guarda, M. (2012). Computer-mediated communication and foreign language education. *Journal of e-Learning and Knowledge Society*, v.8, n.3, 15-27.
- Higgins, R. (1991). *Computer-mediated cooperative learning: Synchronous and asynchronous communication between students learning nursing diagnosis*. Unpublished doctoral dissertation. University of Toronto. Retrieved from <http://www.cybercorp.net/rhiggins/thesis/>.
- Kelm, O. R. (1992). The use of synchronous computer networks in second language instruction: A preliminary report. *Foreign Language Annals*, 25(5), 441-454.
- Kern, R. G. (1995). Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *Modern Language Journal*, 79(4), 457-476.
- Kern, R. (1996). Computer-mediated communication: Using e-mail exchanges to explore personal histories in two cultures. In Warschauer, M. (ed.). *Telecollaboration in foreign language learning*, 105-119, Honolulu: University of Hawai'i.
- Lee, L. (2006). A study of native and non-native speakers' feedback and responses in Spanish-American networked collaborative interaction. In Belz, J. A. and Thorne, S. L. (eds.). *Internet-mediated intercultural foreign language education*, 147-176, Boston, Thomson Heinle Publishers.
- Levy, M., & Kennedy, C. (2004). A task-cycling pedagogy using stimulated reflection and audioconferencing in foreign language learning. *Language Learning & Technology*, 8(2), 50-69.

- Luppicini, R. (2006). Review of computer-mediated communication research for education. *Instructional Science*, 35(2), 141-185.
- Mahdi, H. S. (2014). The impact of computer-mediated communication environments on foreign language learning: A review of the literature. *World Journal of English Language*, 4(1). doi:10.5430/wjel.v4n1p9.
- Metz, J. M. (1994). Computer-mediated communication: Literature review of a new context. *Interpersonal Computing and Technology: An Electronic Journal for the 21st Century*, 2(2), 31-49.
- Romiszowski, A., & Mason, R. (2004). Computer-mediated communication. In Jonassen, D. (ed). *Handbook of Research for Educational Communications and Technology* (pp. 397-431). Mahwah NJ: Lawrence Erlbaum.
- Salaberry, M. R. (1997). A theoretical foundation for the development of pedagogical tasks in computer-mediated communication. *CALICO Journal*, 14(1), 15-33.
- Sproull, L., & Kiesler, S. (1991). *Connections: New ways of working in the networked organization*. Cambridge, MA: MIT Press.
- Sullivan, N., & Pratt, E. (1996). A comparative study of two ESL writing environments: A computer-assisted classroom and a traditional oral classroom. *System*, 29, 491-501.
- Thorne, S. L. (2003). Artifacts and cultures-of-use in intercultural communication. *Language Learning & Technology*, 7(2), 38-67.
- Thorne, S. L. (2008). Transcultural communication in open Internet environments and massively multiplayer online games. In Magnan, S. (ed.). *Mediating discourse online*, 305-327, Amsterdam, Benjamins.
- Tudini, E. (2003). Using native speakers in chat. *Language Learning & Technology*, 7(3), 141-159.
- Ware, P., & O'Dowd, R. (2008). Peer feedback on language form in telecollaboration. *Language Learning & Technology*, 12(1), 43-63.
- Ware, P., & Perez Cañado, M. L. (2007). Grammar and Feedback: Turning to Language Form in Telecollaboration. In O'Dowd, R. (ed.). *Online Intercultural Exchange. An Introduction for Foreign Language Teachers*, 107-121, Clevedon: Multilingual Matters.
- Warschauer, M. (1996). Motivational aspects of using computers for writing and communication. In Warschauer, M. (ed.). *Telecollaboration in foreign language learning*, 29-48, Honolulu, University of Hawaii Press.
- Weisband, S. P. (1992). Group discussion and first advocacy effects in computer-mediated and face-to-face decision-making groups. *Organizational Behavior and Human Decision Processes*, 53, 352-380.
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