

## MY FIRST CMC ARTICLE REVISITED: A WINDOW ON SPANISH L2 INTERLANGUAGE

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The computer-assisted language learning (CALL) field seems to change overnight with new technological affordances. Blake revisits his 2000 LLT article on computer-mediation communication (CMC) in order to reflect on how the field has examined this topic over the past decade or so. While the Interaction Hypothesis continues to guide researchers in broad terms, the frame of reference has shifted from just text-based analysis to fully synchronous video exchanges.

**Keywords:** Computer-mediated Communication, Sociocultural Theory

**APA Citation:** Blake, R. (2016). My first CMC article revisited: A window on Spanish L2 interlanguage. *Language Learning & Technology*, 20(2), 162–165. Retrieved from <http://llt.msu.edu/issues/june2016/blake2.pdf>

**Received:** December 20, 2015; **Accepted:** February 1, 2016; **Published:** June 1, 2016

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At the turn of this century, second language (L2) researchers were busy testing the mettle of the *interactionist hypothesis*, which viewed dialogic communication and breakdown repairs as the key to promoting L2 development (Gass, 1997; Gass & Varonis 1994; Long, 1996; Pica, 1994; Varonis & Gass, 1985). Studies following this line of inquiry were designed to gather evidence to show that face-to-face negotiations of meaning—interactions carried out between L2 learners and native speakers as well as those involving learners working with other learners—would “prime the pump” of L2 development (Gass, 1997, p. 130). About the same time, the use of computer-mediated communication (CMC) was gathering steam in the teaching trenches, prompting the inevitable question of whether the same benefits purportedly gained from these negotiations of meaning in the classroom would obtain in a CMC setting as well. Kern’s (1995) study perhaps marked the first important CMC study in which he documented that language students wrote more turns when using the Daedalus Exchange software than students talking face-to-face.

Testing the interactionist hypothesis with CMC exchanges was the prime motivation for my 2000 study, “CMC exchanges: A window on L2 development”. Using as a guide the interaction pattern observed by Pica, Kanagy, and Falodun (1993)—namely, trigger > indicator > response > reaction—I wanted to see if intermediate students of Spanish exhibited similar linguistic behaviors while carrying out CMC chat tasks (i.e., text only) done in learner–learner pairs (see also Lee, 2001). I found that these intermediate language students did, indeed, negotiate meaning when breakdowns occurred, but mostly with respect to lexical items and only rarely with unfamiliar grammatical structures. Although students were asked to respond to both information gap and jigsaw tasks, the jigsaw prompts yielded the greatest number of negotiation events. Nevertheless, the total number of negotiations of meaning remained very low for each task, with the count never exceeding 3.5% of the total number of speech turns, even with the most productive tasks. In other words, if students are noticing the gaps in their L2 grammar as a result of these negotiations, which is the principle claim of the interactionist hypothesis, the process is happening very slowly and most specifically with respect to lexical items. In the words of one of the participants, “It gave me a wake-up call that vocabulary means everything.”

What followed in these years was an onslaught of inquiries into CMC chat exchanges (for an excellent review of synchronous CMC studies from this period, see Sauro, 2011), which by in large were framed by the same type of conversational analysis previously employed with studies on classroom exchanges.

Schwienhorst (2004) extended the examination of native and non-native discourse into the arena of multiuser object-oriented forums, which are text-based adventure games or conferencing systems. Pelletieri (2000) and Mackey (1999) tried to show that syntactic structures could also be the principal stimuli for negotiations of meaning if the appropriate tasks were provided to students. Smith (2003) elaborated on and refined the original interactionist paradigm of Varonis and Gass (1985) to include additional feedback loops. Payne and Whitney (2002) found that keyboarding during CMC chats had a significant positive effect on oral proficiency. However, Abrams (2003) found no such facilitating effect for asynchronous CMC chatting using a different experimental design from that of Payne and Whitney (2002). Later, Smith (2008, 2012) used screen capture and eye-tracking software to show that the purely linear conversational analysis previously assumed to be happening in most CMC studies failed to capture how the students were actually processing these conversational turns and providing feedback to each other. Smith and Sauro (2010) have found that the increased processing time afforded by the chat format does not always lead to more careful responses. Despite this spate of CMC studies, the field still has not addressed head-on the relatively low frequency of negotiations and repairs and what that might mean for the viability of the interactionist hypothesis for SLA theory in general.

From a sociocultural perspective, researchers also began looking at cross-linguistic and cross-cultural telecollaboration among speakers of different languages. This approach to CMC studies intended to shed light on the development of intercultural competence as well (Belz, 2002; Lomicka, 2006; O'Dowd, 2006). Results from Ware and Kramsch (2005) reminded the field that CMC tasks need to be carefully introduced to the participants so that cultural differences do not become a barrier to communication—in other words, the use of technology is not transparent, but always culturally embedded.

Then CMC tools began to routinely offer the exchange of audio files and, more importantly, voice exchange on the fly with true telephonic capabilities (i.e., VoIP). This technological advance suddenly opened up interesting opportunities for online courses to enhance learner–learner interactions in ways similar to the classroom—something that the profession had always considered the *sine qua non* of language instruction. It became possible to communicate using two channels at the same time—one via text and the other via normal conversational exchanges—although sometimes with unpredictable results (see Lamy, 2004). Sauro (2009) looked at the use of these different modalities from the point of view of gender differences. In one of her ESL experimental dyads, a Japanese woman refused to use the audio channel preferred by her male L2 partner. Instead, she resorted to controlling the flow of the conversation exclusively through textual exchanges.

The present CMC technology routinely provides the ability to simultaneously use both video and textual chat modalities, both in real and deferred time. These affordances now permit researchers to explore in more sophisticated ways the notions of L2 proficiency and fluency when L2 learners are performing synchronously as well as asynchronously. This comparison is very relevant for measuring L2 development since oral production is significantly affected by the complexity of any particular task (see Robinson, 2011; Skehan, 1998). In a recent case study, Guillén and Blake (in press) found that one L2 learner's syntactic complexity and accuracy improved significantly by being able to post a "best-effort" video online, as compared to what the learner was able to do when faced with the pressure of synchronous videoconferences. Synchronous videoconferences and asynchronous video posting are clearly changing the nature of the online language curriculum, increasing opportunities for L2 interactions previously associated only with the classroom learning environment. The CMC field still needs to know how L2 learners use these tools, while instructors need to identify how to best incorporate these activities into their curriculum. More nuanced notions of proficiency and fluency (see Hulstijn, 2015) will, no doubt, inform future CMC research. The computer will continue to offer researchers a convenient and relatively unobtrusive way of tracking how L2 learners develop greater linguistic expertise in real time—a window on interlanguage development.

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