Text, dialog, and communication in a computer-mediated class: Challenging language learners

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Abstract
The article addresses the notions of conversation, dialogue, text, and interaction as they play out in media-rich classrooms. It reviews the developments in pedagogical approaches toward computers in class and continues to evaluate interaction in language learning. It further turns to discuss reflective practices and the possibility to combine them with high interactivity of computer mediated communication. The article concludes with an argument for the need to re-conceptualize the notion of a text in teaching language learners to construct and negotiate meaning.

Keywords: computer technology, mindtools, ESL, interaction

1. Introduction
In 1994, an article by Perk and Dorricott opened with a hypothetical comparison: if tomorrow all computers were removed from businesses, most enterprises would find it nearly impossible to continue; surprisingly, if the same was tried out in schools, no striking difference would be noticed (Perk and Dorricott 1994: 11). At that time, schools – unlike businesses – still rumbled along virtually unchallenged by the presence of computers. Nowadays, the scales have undoubtedly been tipped in favor of computers staying in classrooms, and educators around the world are striving to put this technology to the best use possible. Rapidly losing their attractiveness as tutoring or grammar drill devices, computers are taking a more honorable position of mediators in creating
learning environments in which learners accept increasingly active roles and share responsibility for the outcomes of a learning process. More importantly, as new arenas of language use and novel social practices mediated by modern technology keep mushrooming, they should not bypass language teachers who owe themselves as well as their students a chance to participate in emerging virtual communities.

Suffice it to say that technology allows educators to fulfill many old dreams: individualize instruction, design activities that help students discover important relations between ideas and concepts, find fresh and original solutions, even “put the reins into the hands of students” and watch as they are transported “to destinations they envision” (Perk and Dorrinocott 1994: 14). However, it needs to be highlighted that with the advent of technology in language learning, concepts of experience and collaborative work have moved to the forefront of theoretical attention: a grand paradigmatic shift has accentuated “reflective participation in language action” (Debski 2003); the promotion of learner autonomy has led to modification of teachers’ and learners’ roles; the curriculum is now viewed as a dynamic, collaborative construct; the classroom design favors flexible schemes that nurture creativity, socialization, and vast interactional opportunities (Sierra 1999). Changes of such a scope put up a serious challenge to the beliefs about language learning and demand that traditional methods of language instruction give way to approaches sensitive to and encompassing of new learning environments.

2. Technology for a language classroom

Language students, even if they first enter a computer lab half scared, tend to develop a strong liking for technology for practicing L2 skills, learning about the world and finding answers to burning questions. Syllabus-wise, traditional language arts activities such as text analysis, critical reading, creative writing, listening, etc. can be relatively easily adopted for a computer-assisted instruction. However, doing just the same old thing on a computer clearly ignores opportunities presented by technology and amounts, as George Leonard wittily remarked, to offering “an educational horse and buggy” (cited in Perk and Dorrinocott 1994: 14) in the age when both teachers and learners deserve more than “simply polishing the buggy for a longer ride” (ibid.).

To make a first step towards radical changes is to carefully revise assumptions about language that underlie all our pedagogical decisions and experiments. Second Language Acquisition theory currently supports the view of language as a dynamic interactive system for conveying meaning, from which
follows that setting up an environment where students work on acquiring skills and developing the ability to construct and negotiate meaning should rank high on a teacher’s priority list.

For over a decade now, David Jonassen (1996, 1999) has been arguing along similar lines, promoting the idea of technology whose support of learning does not end with mere attempts to instruct learners because, to put it crudely, learning from computers is the wrong kind of learning. Computers can and must be used as tools for knowledge construction and representation. Students should learn with technology, not from it, Jonassen emphasized, coining the word ‘mindtools’ to capture his vision. Functioning as mindtools, computers help organize personal knowledge and represent it as well as stimulate critical thinking about the content. Admittedly, not all computer applications are natural mindtools, but most of them can produce comparable results if properly approached.

Among several classes of mindtools, particularly applicable to language learning contexts are semantic organization tools and conversation and collaboration tools. Broadly speaking, semantic organization tools assist learners with the analysis and organization of what they know or what they are learning. Two of the widely used applications of this type are (a) databases and (b) concept mapping tools. Structuring a database, for instance, requires learners to develop data structure, collect relevant information, break it into appropriate fields and records so that in the end one can search the resulting structure to answer various questions. Concept mapping tools adopt a decision-making strategy by the same name for learners to draw visual maps of concepts, decide upon the relationship among ideas, and connect them into a multi-dimensional network.

Hypermedia applications belong to yet another subgroup of mindtools that assist learners in creating their own multimedia product reflective of their understanding of ideas. Designing presentations of such a type often engages learners in an activity that critically depends on a skillful compilation of information in various formats – visual, graphic, linguistic, musical and other. Thus, for example, preparing a text for an online publication lends itself to extensive reading, editing, evaluating, and summarizing information on the topic so that a verbal message receives supporting images, useful links, and proper sound to go with.

3. On interactivity of computer-mediated communication

The level of interaction achieved via technology has been found the single most prominent feature of computer-mediated communication (henceforth CMC)
because it offers learners the kind of opportunities they need to develop skills in meaning negotiation. CMC boosts interaction by expanding a circle of people one can contact with electronically and the contexts in which he or she can communicate. Computer-mediated interaction ensures greater equality among participants than does its face-to-face counterpart, supports symmetry in distribution of turns and, therefore, is likely to promote quality learning. In addition, both synchronous and asynchronous modes of CMC prove to be beneficial for developing reflective practices as learners are allowed flexibility to ponder messages at their own pace (Warschauer 1998).

At the same time CMC is characterized by a high degree of disruption in turn taking and topic maintenance, overlapping exchanges, and rapid topic decay. Nevertheless, users seem to be able to adapt to the medium and tolerate its peculiarities in view of the advantages of greater interactivity it offers because, as Susan Herring (1999) explains, “the availability of a persistent textual record of the conversation renders the interaction cognitively manageable, hence offsetting the major ‘negative’ effect of incoherence in spoken interaction”. Unlike real time conversation, where responses are closely-knit together and interpreted depending on uninterrupted adjacency, a textual record of interaction in CMC is of invaluable service to all learners, as participants in CMC have the benefit of viewing for some period of time the immediately preceding chunk of discourse until new messages push the old ones off the screen. With a record of what is going on sitting virtually at their fingertips, communicants are able to reflect on what has been said as well as take part in multiple interactions without getting hopelessly lost or confused.

Having selected interactivity as a defining criterion of modes of communication, Lamy and Goodfellow (1999: 50) propose a framework for characterizing asynchronous CMC discourse and differentiate between ‘monologue’, ‘dialogue’, and ‘conversation’. Monologue messages in a CMC environment do not contain stimulus for others to respond to and are not expected to generate further exchanges. In online conversation, participants move from topic to topic “with no pre-set agenda”. Although these exchanges, as Lamy and Goodfellow mention, might appear interactive by social standards, their pedagogical value for language learning remains doubtful, precisely because of the asynchronous nature of the medium. As opposed to online conversation, dialogic interaction, claim Lamy and Goodfellow, constitutes a type of exchange interactive in an informational and social sense, as learner engagement is rooted in a social context in which, in its turn, understanding is negotiated.

On a slightly disappointing note, Warschauer (1996 cited in Ortega 1999)
found that while exchanges via computers were longer, the level of interaction was lower due to the fact that people were busy expressing their own opinions and putting their ideas across rather than weaving a thread of conversation together. Also reported are postings that are left unanswered, a happening that triggers a counter-strategy of "sending out multiple messages in an attempt to attract a response" (Herring 1999).

4. Learning to communicate in a computer-mediated environment

Language classrooms, as the name suggests, should be about learning how to express oneself with the help of words and understand others. Yet, despite numerous reports of advantages of CMC to students who are either shy or need more time for planning an utterance or feel intimidated by the immediate feedback on performance in face-to-face communication, comments to the contrary as well as concerns about absence of nonverbal clues and feelings of isolation in computer-assisted classes are no less frequent. Considering the fact that conversation at its best draws out responses, invigorates thinking, and challenges attitudes and beliefs, we argue that a computer-mediated language class has a good chance of rivaling the traditional one in the area of creating space for stimulating and fulfilling conversation, providing that an environment is carefully nurtured to highlight openness, concern for the relationship, and dialog. Attempts to force its development, for example, by setting up a classroom electronic bulletin board and assigning mandatory postings to a class that has not yet evolved into a group with a sense of togetherness, are bound to run into a dead end with a handful of unrelated messages. To contrast, when the learners’ community shows signs of advancing, much awaited meaningfulness and relevance emerge to provide the right context for language development and students are “motivated to stretch their linguistic resources in order to meet the demands of real communication” (Ortega 1997: 83).

So far, it has been made clear that CMC does not and should not resemble conventional face-to-face communication, mimicking all its features. With CMC, we may well work in an environment that does not comply with rules of conversation as we know them because it has its own. Bulletin boards, for instance, allow students to express their opinions so that everybody’s voice is heard, a result that does not usually occur in face-to-face discussions. Chats provide learners with the opportunity to participate in several ongoing discussions at the same time, even adopting multiple identities, a practice that is impossible under conventions of oral discourse. Debski (2003) suggests that “the virtual world allows people to have experiences they cannot have, and assume social
roles they would feel inhibited about or unfit to take on in real life”. While these experiences can be extremely realistic and fulfilling, the question remains as to whether electronic communities provide the right context for language learners to try their identities as L2 speakers, and whether the students, skillful in adopting alternative electronic identities, will be willing to let their L2 speaking selves ‘plunge’ into a life beyond the screen.

5. Thinking for virtual speaking

Language acquisition theory and modern cognitive research have long recognized and stressed the importance of conscious learning, of determining objectives, choosing ways of achieving them, and assessing results. Recently, the growing appreciation of learner autonomy has put conscious reflection back on the list of highly relevant issues. Conscious organization, control, and evaluation of experience are argued to be the sine qua non for second language learning (Van Lier as cited in Lamy and Goodfellow 1999). With CMC technologies providing direct interaction, the role of reflective practices rises anew. Accepting interaction as a facilitator of language learning and reflection as a condition of language learning in virtual environments, Lamy and Goodfellow advocate a pedagogy for online language learning which aims at promoting what they call “reflective conversation”. The latter is achieved by modifications of a reflective dialogue “through its being sustained over time by a number of participants” (ibid.: 52). Researchers distinguish reflective conversation in a language learning setting by (a) reflection on learning; (b) negotiation of meaning; (c) social contingency; (d) focus on form; and (e) sustainability over time. To compare, monologue may be reflective on learning and focuses on form but lacks other characteristics essential for CMC, while mere chatting preserves features of social contingency and duration only.

Turoff et al. (1999) present the idea of collaborative discourse structure that evolves as a collaborative undertaking, open to modifications and resulting in categorizing discussion comments. The goal of working out this structure is to provide a template for the group discussion so that the majority of the points made during a discussion are captured.

Morgan (2000) adds that in online discussions it is advisable to encourage students to reflect on what they have accomplished in a discussion, to go over exchanges analyzing them in terms of positions taken, arguments given, evidence provided, conclusions drawn etc. Here, teachers can help students get most out of online activities without stifling the dialogical interaction.

In order “to encourage and manage dialogical, critical, reflective exchanges”
among students, Morgan (2000) suggests an approach based on a model of argument-as-social-experiment, which treats arguments as social comparison processes, as experiments in which hypotheses are tried out, inquiry and demands for evidence get highlighted, alternatives are explicitly stated. As learners become aware of their actions (that is, posing hypotheses, providing evidence, rejecting, modifying hypotheses, and the like) carrying different weight, they begin gaining more control over what they do. Thus, by concentrating on developing discussion skills in general, learners manage to get from the online conversations more than usually is the case.

Despite positive results demonstrated by Morgan, however, one cannot fail to see that argumentative skills may develop in environments other than computer-mediated ones. Trying to bend a new medium to fit conventions and standards of clear thinking, reasoning, and logical sequencing, we seem to bypass (or cleverly outwit) its nature and certain attractiveness that draw thousands of learners toward computers. A question about the place of conscious reflection in CMC, which – as has been pointed in the above – is a highly interactive learning environment, is a legitimate one. Combining conscious reflection with spontaneous interaction is a challenging task, even though the encouraging news may be that videoconferencing is particularly well suited for such a combination as it is “flexible with regard to place and pace, and able to support both monologue - and conversation-like forms of written language exchange” (Lamy and Goodfellow 1999: 43).

6. A text and CMC

Now, it cannot go unnoticed that CMC is text-based and that the web materials are predominantly textual. The potential of text-based interaction and collectively composed knowledge has been exploited for centuries; yet, not long ago a Russian semiotician Yuri Lotman (1996) provided a fresh look on texts describing them as thinking devices to generate new meaning collaboratively. He pinpointed the essence of textual communication saying that a written text serves as a cognitive amplifier and allows the bootstrapping of thinking in a more powerful manner than is normally possible in speech. Cognitive amplification opens up a text, which is then treated as a tentative and provisional attempt on the part of the writer to capture his or her current understanding of the matter. Grasping the author’s understanding of a topic requires linking together experience, reflection, critical thinking, inquiry and collaboration.

Unfortunately, such treatment of a text is rarely found in the classroom where texts are frequently viewed as illustrations of a good language use to be
analyzed for patterns and structures. According to this view, elements found in
the text but not in the language become unimportant extras; consequently, texts
are presented as packages from which to excavate typical phenomena. However,
when we collaborate on the basis of a given text or create a text, everything be-
comes a draft to be improved and every element can be replaced. Hence, a text
appears to be carrying a program of its further development (Lotman 1996) that
we can use to construct our own meaning, to interpret the message through a
lens of our own experience, to re-write and transform it, or put it into a different
medium.

So, when students learn to summarize, evaluate, select and reject, organize
and interpret, edit and revise, they learn how to comprehend their worlds as re-
presented through a variety of texts. Texts produced during a chat session, for
example, when saved, can be further reflected upon, used to summarize argu-
ments, to evaluate or expand evidence, to reformulate hypotheses for further
discussion, or to prepare report on the thread, etc.

7. Conclusion

Technology today has the capacity to organize classrooms which promote inter-
action through questioning and reasoning, problem-solving, self-evaluation,
and reflection. It can also be instrumental in creating communities in which
meaningful communication takes place. CMC is one of the environments that
provide L2 students with authentic language learning experience and opportu-
nities for spoken and written interactions in the target language. But, again, it
is not the medium but rather the method that influences the efficiency of
instruction the most.

CMC still does not have a strong theoretical foundation to rely upon, or
practical implementations to answer all sorts of questions about learning lan-
guages in networked classrooms. As Ortega (1997: 84) rightly pointed, technol-
ogy in L2 classroom needs to be evaluated “not only from a pedagogical
standpoint but also in light of our most current knowledge about how languages
are learned”. To do so, we have to further investigate how L2 performance and
L2 learning are shaped by particular features of CMC, both in its synchronous
and asynchronous modes, to examine linguistic qualities of language used on-
line as well as aspects and characteristics of language that computer-mediated
environments encourage or block in non-native speakers. When we have done
that, we can be sure that we have met the challenge brilliantly and bravely and
have done a good service to our learners scaffolding their development into
competent language users.
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