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Instructional Computer-Assisted Language Learning

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Instructional Computer-Assisted Language Learning

Abstract
In second language teaching and learning, computer technology extends the types of interactive activities that learners can work on in and outside of the classroom, and therefore it has affected the way that many teachers teach and learners learn. Teachers might, for example, ask students to seek specific information on the Internet in preparation for an information gap activity in class; teachers might indicate awkward expressions in a student’s essay and show the student how to find examples of target language collocations in a corpus; and teachers might organize a virtual collaboration between their students and proficient speakers of the target language in another country. These activities and many more add significantly to the repertoire of activities that learners can engage in because of three affordances offered by technology: human-computer interaction, distance written and oral communication, and access to a community with data and creative opportunities on the Internet.

Disciplines
Language and Literacy Education

Comments
References


Suggested Readings


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Learners' Interactions with the Computer

Language learners have a variety of opportunities for interaction with the computer through the use of tutorial software designed specifically for language learning. The best examples contain linguistic input that is interesting and engaging for learners to listen to or read in addition to opportunities for help and practice with the language. For example, learners can watch and listen to videos that have been segmented in a manner that allows for stopping to check for comprehension and to provide the learner with help (Rost & Fuchs, 2004). Help includes repetitions, a dictionary, grammar explanations, and additional images. This process of interactive listening contrasts with non-interactive listening such as one normally does in television watching; interactive listening allows for stopping to get help (Chapelle, 2005).

Helpful interactions are also available to learners as they write and—to some extent—as they plan for speaking. Students can interact with an online grammar checker, dictionary, and corpus of target language texts to gain pertinent help as they write or plan to speak (e.g., Burston, 2001). Interactions that occur as the learner is attempting to use language to make meaning may be particularly rich whether this occurs during comprehension or production (Chapelle, 2003).

Interactions Between Students and Other Language Users

New forms of communication over networks and on the Internet have opened up a range of activities allowing learners to connect, interact, and collaborate with other target language speakers and most notably with peers who are speakers of the target language (Chun, 2008). The first explorations of learners engaging in synchronous written online communication with local peers in the language class (e.g., Chun, 1994) found positive results: Each learner seemed to participate more than he or she would in a traditional face-to-face classroom with oral language. Some evidence also suggests that the use of written language for conversation provides good opportunities for acquisition of vocabulary (Smith, 2004) and is an effective adjunct to oral face-to-face conversation, probably because of the opportunity for students to inspect and reflect on linguistic form in the written language (Payne & Whitney, 2002).

Interactions between learners and other language users in remote locations have opened a new set of opportunities for developing pragmatic competence and exploring intercultural communication (Belz & Kinginger, 2003). Students are paired or placed into groups to work on assigned projects as part of their classroom learning with students at a remote location with whom they inadvertently explore the intricacies of cross-cultural communication (Ware & Kramsch, 2005).

Teacher-guided communication and collaborative activities represent only part of what many language learners are doing with computer-mediated communication for language learning. Some language learners seek out additional opportunities for interaction in the target language beyond what they are assigned in class. For example, social networking (e.g., Facebook) can provide connections with peers who speak the target language and opportunities to design sites using the target language.

Linguistic Databases and Web 2.0

The World Wide Web offers many opportunities for learners to access linguistic data and use the target language creatively in Web 2.0, which refers to the types of sites that allow users to create and contribute their own information. The pedagogies for helping learners to use electronic corpora for language study have been discussed by the technology
enthusiasts in the field for many years, but now that learners have access to the multimodal collection of linguistic and cultural information on the Web, such pedagogies are more widely useable. In fact, the wealth of authentic texts, dictionaries, and searchable linguistic data creates the opportunity and need for new pedagogies. For example, genre-based writing pedagogy can be developed in new ways through the use of the Internet.

The capacity for creative use of language in conjunction with visual communication is extensive as students construct their own Web sites, blogs, and online communities. Some find that the tools provided in today’s electronic environments make possible rich opportunities for project-based learning—sometimes in cross-cultural collaborations (Kern, 2006).

Language Learning?

It is tempting to look at these new opportunities as offering clear benefits for language learning, and some evidence exists for the quality of some of the practices outlined above under some circumstances. However, rather than attempting to assess whether or not such practices are superior to classroom learning, it is useful to note that many of the tools and practices are used by many learners naturally while they are using their foreign language. This fact alone—that learners expect to use technology for language use and learning—provides an impetus for language teachers to incorporate good technology practices into their teaching repertoire.

Computer technology affords professionals in many areas novel perspectives on their everyday practices. In language teaching, it prompts instructors to examine more carefully the processes of language teaching and learning so that they may help to prepare learners to choose and use technologies. In this context, we might conceptualize the language proficiency that is the target of language teaching to include the ability to select and use technological resources during performance to increase the quality of their writing and speaking production as well as their comprehension in reading and listening.

SEE ALSO: Computer-Assisted Language Learning Effectiveness Research; Computer-Mediated Communication and Second Language Development; Corpora in the Language-Teaching Classroom; Intelligent Computer-Assisted Language Learning

References


Mothers and caretakers help their children to learn language and learn about the world simultaneously. How can teachers similarly integrate language and content learning?

Today there are large and increasing numbers of learners who learn content areas and disciplines through the medium of a second language. For many of these students, and particularly for language minority students, second language medium education is challenging. Goldenburg (2008) states that in US national testing in 2007 nearly half of fourth grade students in the English-language learner (ELL) category scored “below basic” in mathematics—the lowest level—and nearly three-quarters scored below basic in reading. His research review finds that students need academic language development for school success. The vital task of integrating the explicit teaching of academic language within content lessons requires the coordination of language and content objectives (Echevarria, Vogt, & Short, 2007). Students need to understand the different ways language is used to construct content knowledge in disciplines like mathematics or history.

Models of language and grammar can be divided broadly into formal models, which describe the language system only, and functional models which describe both the language system and how it is used to make meaning in discourse and context. A functional model of language (Derewianka, 2007) is required to describe academic reading comprehension and how academic language is used to construct content knowledge.

The traditional model of language used in the ELT field is a formal one, identifying the parts of speech and the rules for combining them into sentence structures. While communicative language teaching “foregrounded language use over knowledge of language forms and conceptualized that use in terms of communicative tasks, even the most elaborated assessment framework, that by Bachman and Palmer (1996), upheld the separation of language knowledge from topical or content knowledge” (Byrnes, 2008, p. 37), and did not analyze how language constructs content knowledge in discourse.