Chapter 13

Need and Possible Criteria for Evaluating the Effectiveness of Computer-Mediated Communication

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ABSTRACT

Computer-mediated communication (CMC) has been a ‘hot’ topic in computer-assisted language learning (CALL); however, its effectiveness remains uncertain. This chapter reviews the nature of CMC, pinpoints the advantages and disadvantages of incorporating it into language learning, considers factors that may affect the quality of CMC, and identifies possible directions for future studies. The author argues that sound criteria are lacking for the evaluation of the effectiveness of CMC and attempts to identify a set of possible criteria for classroom-based studies drawing from literature in language teaching and learning. The author also urges engineers to consider these criteria when designing new software, so that end users can conveniently measure its effectiveness and record their own progress.

INTRODUCTION

Technology has been increasingly used for language teaching and learning. However, information technology (IT) engineers have probably invented the technology without taking these purposes into account. As a result, teachers consume passively whatever and whenever new software is out on the market. Studies on CMC have burgeoned in recent years. Both positive and negative results have been found and many factors may contribute to the success or failure
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of CMC. It was therefore pointed out that the effectiveness of CMC remains uncertain (Levy & Stockwell, 2006). It has been challenging for teachers to explore ways to incorporate CMC into their classrooms and engage their students in learning activities derived from it. Also challenging is the requirement to identify ways of measuring the effectiveness of CMC. Therefore, it is argued that sound criteria are needed to evaluate the effectiveness of using CMC in language teaching and learning contexts.

LITERATURE REVIEW

According to Herring (1996, cited in Levy & Stockwell, 2006), CMC is “communication that takes place between human beings via the instrumentality of computers” (p. 84). It was “originally developed for deaf education at Gallaudet University in the mid-1980s” (Bruce, et al., cited in Abrams, 2006, p. 182). Due to its successful exploitation in English composition classes, it started to be applied to second language (L2) learning and teaching contexts in the 1990s (Abrams, 2006).

CMC has become a central topic in recent research in CALL. Chun (2007), after examining articles in the two top CALL journals in America (i.e., CALICO Journal and Language, Learning & Technology) from 2001 to 2006, discovered that “hot” topics during this period included CMC, Web-based instruction, culture, writing, vocabulary, reading, literacy, syntax/grammar, speaking, and listening, in this order.

Distance is no longer a problem for communication. CMC “permits not only one-to-one communication but also one-to-many communication” (Kern & Warschauer, 2000, p. 12). Chapelle (2001) also noted that a synchronous CMC writing activity provides the opportunity for learners to focus on form, and the interaction that happens in real-time might help engage learners in modified interaction, as well as modified output. Now CMC also engages learners in many-to-many communication and has the capacity to allow not only written but also verbal and visual communication with native speakers or other learners around the world.

Effective communication on the Internet requires Web-literacy. Web-literacy refers to knowledge and skills needed for the use of the World Wide Web. The birth of the World Wide Web originated from a networked information project at CERN (a European organization for nuclear research) by Tim Berners-Lee (CERN, 2007) in October, 1990 (Delcloque, 2000, p. 38). Since learners vary in their knowledge or skills, there are high-literate as well as low-literate users of the Web. Moreover, due to constant and rapid change in the nature of the Web and the Internet, the knowledge and skills required inevitably increase.

To be Web-literate, learners need to be able to browse the Internet to search for information, to locate the information needed, to use references to locate the information needed, to comprehend and process the information found, to evaluate whether the information is what is needed, to understand texts that are accompanied by hyperlinks, sound, animation, graphics, music, and video, etc., and to communicate effectively on the Internet (adapted from Edusoft, 2002).

Online communication has become an essential part of people’s lives nowadays. To communicate effectively on the Internet with native speakers or other learners anytime and anywhere, learners need to be equipped with skills such as joining in chat rooms or discussion groups on the forum, sending e-mails, and posting messages on the bulletin board or blogs. The communication can be synchronous and happens in real-time (e.g., chat and instant messages) or asynchronously (e.g., email and forums). Language learners can even use audio- or visual-devices to deliver their voice or images through the Internet. For example, it is popular to use podcasts to create personal radio shows on blogs. Many people nowadays use a
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