

Extended Implications of Technology in Second Language Teaching and Learning

Cheng-Ling Alice Chen

Teachers College, Columbia University

Bhatia and Ritchie's (2009) book chapter provides an extensive review of the core issues pertaining to second language (L2) acquisition in the information age. It also reiterates the influence of information technology on second language education. Technology, with all its merits, has "brought about a new generation of information and language learning tools" (p. 547). This is so be it used online or offline, inside or outside of the classroom, synchronously or asynchronously.

According to Bhatia and Ritchie (2009), "in addition to serious gains registered in the areas of both practice and research, the breadth and depth of new opportunities and challenges rendered by technology are multifaceted" (p. 558). Research (e.g., Chapelle, 2001; Egbert, Chao, & Hanson-Smith, 2007; Salaberry, 2001; Zhao, 2003) has indeed shown that the use of technology seems to not only broaden the horizons for learning an L2, but also have an impact on the nature of both the acquisition process and the object of study. A case in point would be the manner in which technology (a) contributes towards an increased amount of exposure to the L2, and (b) provides an expanded scope of the L2 input for learners to work out the often-intricate form-meaning-function connections regarding a specific target structure. Computer-assisted language learning (CALL), as its name suggests, utilizes such "on-line" technology-based means of communication as blogs and discussion forums to deliver additional L2 input that is *authentic*, *comprehensible*, and *extensive* – properties of which render such input conducive to acquisition (Krashen, 1985). At the same time, CALL also involves the use of other carefully designed "off-line" computer software programs that are capable of projecting a simulated target language (TL) environment for learners with limited access to the one in the real world. In fact, research has also shown that the use of technology may foster positive attitudes (e.g., an increased level of interest, motivation, interaction, and language production) toward language learning in general.

This by no means implies that applying CALL in language education is problem-free. One difficulty in its application lies with the productive aspects (i.e., speaking and writing) in mastering language skills. Second language research (e.g., Swain, 2005) has shed light on the role of production in not only the acquisition but also the automatization of such skills. In turn, this raises the question of whether it is realistic to expect that computer programs be developed in such a way that they may actually take over the all-important tasks of grading and providing corrective feedback to learners' writing. These are probably a few of the apparent limitations of technology in language education. Apparently, the use of technology in language teaching and learning is somewhat confined by the inherent functionality of the technology tools.

Based on the above analysis, it is evident that computer-assisted language teaching and learning plays a *complementary*, rather than substituting, role in L2 classroom instruction: it is not meant to – and perhaps would never be able to – replace the human language instructor. After all, the most fundamental issues of (i) what constitutes an optimized e-learning environment for L2 learners, and (ii) how best curriculum and technology designs might make use of the "most appropriate tools to their best potential to achieve sound pedagogical processes

and outcomes” (Felix, 2003, pp. 8-9) can only be resolved by L2 researchers and teaching practitioners themselves. To that end, the following issues would need to be thoroughly dealt with as a whole: (1) the theoretical basis for the application of CALL in language instruction (e.g., Egbert, Chao, & Hanson-Smith, 2007; Lightbown, 2000); (2) the technology tool selected and its age-appropriateness vis-à-vis learners of specific age groups; (3) the exact content materials to be included in a particular technology. Ultimately, the key to optimizing from computer-assisted language teaching and learning in the L2 classroom hinges not so much upon the technology itself as it is on the underlying rationale, motive(s), and assumptions regarding what is and is not achievable with that particular technology tool on a realistic basis.

REFERENCES

- Bhatia, T. K., & Ritchie, W. C. (2009). Second language acquisition: Research and application in the information age. In W. C. Ritchie, & T. K. Bhatia (Eds.), *The new handbook of second language acquisition* (pp. 545-565). Bingley: Emerald.
- Chapelle, C. A. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing, and research*. Cambridge: Cambridge University Press.
- Egbert, J., Chao, C.-C., & Hanson-Smith, E. (2007). *CALL environments: Research, practice, and critical issues* (2nd ed.) Virginia: TESOL Publications.
- Felix, U. (2003). *Language learning online: Towards best practice*. Lisse, Netherlands: Swets & Zeitlinger.
- Krashen, S. (1985). *The input hypothesis: Issues and implications*. New York: Longman.
- Lightbown, P. M. (2000). Classroom SLA research and second language teaching. *Applied Linguistics*, 21(4), p. 431-462.
- Salaberry, M. R. (2001). The use of technology for second language learning and teaching: A retrospective. *The Modern Language Journal*, 85(1), 39-56.
- Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 471-483). Mahwah, NJ: Lawrence Erlbaum Associates.
- Zhao, Y. (2003) Recent developments in technology and language learning: A literature review and meta-analysis. *CALICO Journal*, 21(1), 7-27.

Cheng-Ling Alice Chen is a doctoral student in the TESOL program at Teachers College, Columbia University. Her research interests include instructed second language learning, reading instruction, as well as vocabulary acquisition in general, and the effect of the repeated reading approach on second language reading comprehension and vocabulary acquisition in specific. She is also interested in technology-assisted and online game-based L2 learning.