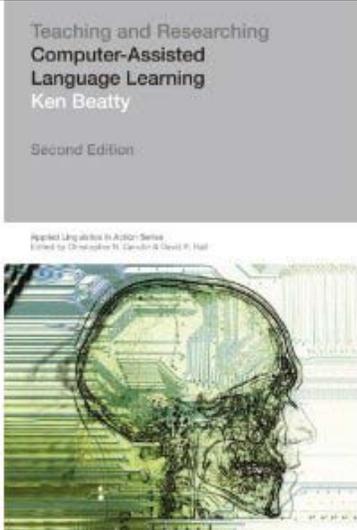


REVIEW OF *TEACHING AND RESEARCHING COMPUTER-ASSISTED LANGUAGE LEARNING*

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| <p>Teaching and Researching Computer-Assisted Language Learning (2nd Edition)</p> <p>Ken Beatty</p> <p>2010 ISBN 978-1-4082-0500-6 Paperback: US \$43.00 284 pp.</p> <p>Pearson Education London, UK</p> |  |
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The past decade has been one in which specialists in CALL have perceived much to be in flux, whether in refining categories (Bax, 2003), reframing long-standing dichotomies (Hubbard & Siskin, 2004), debating the nomenclature for the field as a whole (Levy & Hubbard, 2005), differentiating ‘CALL proper’ from general technology use in the daily work of language teachers (Garrett, 2009), or a combination of these themes (Kern, 2006). It is therefore hardly surprising that multiple authors (see also Chambers, 2010, and Petrie, 2005) have turned to the metaphor of the map when seeking to characterize the field of CALL. Ken Beatty’s *Teaching and Researching Computer-Assisted Language Learning* (2010) is one of several recently revised volumes from the Pearson series, *Applied Linguistics in Action*. It takes as its goal the mapping of a constantly changing field that “creates opportunities to revisit old findings, to conduct new research and to challenge established beliefs about the ways in which teaching and learning can be carried out both with and without a human teacher” (p. 1).

The focus throughout this single-authored volume is squarely on the broader landscape rather than the ins and outs of specific technologies. Section One introduces terminology and key concepts that have shaped the field, Section Two shows how these ideas can be applied and identifies theories of learning and second language acquisition related to them, and Section Three both reviews current research studies and suggests new avenues of investigation. The volume ends with a brief collection of resources and a glossary of key terms.

The first section of the book, comprised of four chapters, provides historical perspectives on early CALL developments as well as a rich array of further references related to the more general field of Computer Assisted Learning (as distinct from CALL and its focus on language). It also covers the development of and distinctions between hypertext, hypermedia and multimedia, and developments in general computing. (See also Wardrip-Fruin & Montfort, 2003 for an extended collection of essays related to Engelbart, Memex, and other related developments).

This initial section closes with a chapter covering eight CALL applications including word processing (spelling and grammar functions), games (Nintendo *Wii*, hangman, and quiz software), literature (particularly with relation to hypertext), corpus linguistics (data driven learning), computer-mediated communication (email, netpals, chatlines, bulletin boards, and MOOs), WWW resources (Dave’s ESL

Café, Club Penguin), adapting other materials for CALL (SimCity), as well as PDAs (Graffiti handwriting recognition) and mobile telephones. In the section on literature, an area of particular interest to Beatty that forms a common thread through several subsequent chapters in later sections of the book, he states his belief that “many of the best CALL programs offer learning in the same way as good literature, presenting a narrative in which the reader/learner draws a more general understanding of themes” (p. 65).

Section Two, entitled *The Place of CALL in Research and Teaching*, introduces concepts from second language acquisition (including negotiation of meaning and comprehensible input and output) as well as collaboration and discourse analysis. The section closes with a final chapter in which Beatty proposes adaptations to a model of classroom instruction from general education for the more specific purposes of CALL software development. In this middle section of the book he carefully articulates the difference between programs that force a lock-step approach and those that offer or encourage the learner to make choices as they navigate through the available materials. It echoes an earlier *Key Concept* box from the first chapter that defines *interactive* as ranging from “a software program in which the learner has some degree of choice, perhaps only in selecting answers to multiple choice questions” to “more elaborate and interactive learning programs” (p. 13) such as a simulated world, a topic that is also revisited at several subsequent points in the book.

There is also considerable emphasis on delineating the differences between behaviorist and constructivist models of instruction, and the applications of both to software interface design. He states early in Chapter 5 that behaviorist methods of instruction are “so ingrained in standard classroom practice that many teachers may assume there is no alternative” (p. 93) and notes one paragraph later that “much of this approach is perceived as endemic to the nature of the computer.” The sub-sections on both *programmed instruction* and *mastery learning* exemplify in striking detail the ways in which the latter two methods have been implemented. After highlighting what he identifies as key differences between behaviorist and constructivist approaches, including the central importance of schema theory, the author emphasizes in this chapter’s conclusion that “the computer, with its binary logic, provides a natural environment for behaviorist models of learning” (p. 107). The role of collaboration and negotiation of meaning in language learning are picked up again as the topic of the following chapter, which focuses on students interacting together around a single computer and the use of discourse analysis to analyze those interactions.

Throughout this section, and the volume as a whole, there is consistent discussion of the extent to which the computer might function in the absence of a teacher, including both the first and penultimate pages. In the model for CALL presented in Chapter 7, the roles of the classroom teacher in the original model (Dunkin & Biddle, 1974) are replaced by the collective experiences of the team of materials developers involved in any given CALL program (p. 148). The section titled ‘technology driving CALL,’ which includes a *Key Concept* box defining and highlighting the differences between artificial intelligence (AI), expert systems and natural language processing, provides useful background in this regard. However, approaches to the integration of technology into language learning and teaching that require increased involvement of and facilitation by a teacher receive, relatively speaking, less attention.

Section Three shifts the emphasis more explicitly to research by first analyzing a set of 102 publications identified via an ERIC database search for the keywords “computer-assisted language learning” between 2006 and 2008. These were in turn analyzed in terms of languages included (predominantly English), skills (including a short section on virtual worlds), processes, technologies (including *Blackboard Vista*), concerns, and subjects (primarily secondary school or university level). This chapter concludes with a brief discussion of action research.

The final chapter of the book systematically explores eight different approaches to research and begins with reminders of the restrictions that authoring packages can impose, the threat of commercial

expediency, potential concerns about the types of exposure to language that newer technologies may facilitate (expressed elsewhere as well), and the ambiguity surrounding the term *innovation*. There follows consistently formatted examples and explorations of the literature review, pilot study (automatic correction in word processing), corpus linguistics (online language use in *Facebook*), and error analysis (coding and contrastive analysis), as well as the experimental (the influence of two different models of instruction), case study (software evaluation), survey (software fatigue), and ethnographic approaches (the culture of *Twitter*).

Overall Beatty emphasizes and explores in relatively less detail areas that involve communication or collaboration with others through the computer rather than interaction at or with the computer, but he offers references for further exploration (for example, Lomicka, Lord, *et al*, 2009; Warschauer, n.d.; and Lantolf, 2000). Almost every chapter in this second edition makes general reference to developments such as Web 2.0 applications and social media, and cites or highlights (via *Further Reading* boxes) articles in these areas from the past five years. As with the rich links to materials within and beyond CALL from the past sixty years in Section One, these updates are a useful resource, though at points readers may encounter studies based on theoretical positions that are beyond the scope of this well-integrated volume.

In Sections One and Three the book maintains a broader scope (the history of CALL including influences from related fields, and an introduction to a range of research methods) while in Section Two it becomes relatively specialized, focusing on students engaging with computer-based learning materials while sitting together at the computer, and the use of behaviorist versus constructivist interfaces in the process of software development. It draws widely on journals and publications from beyond the teaching of languages (*Journal of Interactive Learning Research, Internet and Higher Education, Computers and Education, Educause Quarterly, Chronicle of Higher Education*), and analyzes a collection of recent articles drawn largely from a single CALL journal (*Computer-Assisted Language Learning*). The more general references invite readers to acknowledge that many questions and problems are not restricted to CALL but the reader is also encouraged to seek language learning-specific parameters for and solutions to those puzzles.

A strength of this volume is the extent to which the various chapters, in an extended treatment, build towards a coherent whole. In addition, the extensive references to the literature—both historical and recent—as well as the choice to visually highlight key concepts and quotations within the chapters and supplement these with a glossary of terminology, will be helpful features for those seeking an orientation to the field.

The map of CALL that this volume portrays is one that provides a grounding in the field's history and an introduction to a wide range of potential CALL-related research projects, as well as comprehensive coverage of the areas of software development and the potential for student interaction when working together on materials developed by experts and professionals. In order to provide truly comprehensive coverage of the field of CALL in all of its current permutations (which, as defined by Beatty in the introduction, includes “any process in which a learner uses a computer and, as a result, improves his or her language” p. 7), it would likely need to be paired with materials that offer alternative perspectives in terms of their theoretical bases, those that consider the impact of technology on students in the role of producers, and those that explore in greater detail the implications of the ways in which technology has impacted our ability to interact with others both locally and globally. As the term *research* in the title suggests, the volume is not intended to be a hands-on manual for classroom practitioners; a volume that might be well suited as a practical complement in terms of emphasis and approach is Chapelle and Jamieson (2008).

Hubbard (2011) has noted that it is possible for relative newcomers to define CALL almost exclusively in terms of more recent developments in the field, many of which are tied to the development of the Internet. For anyone seeking to add to their understanding of how the field has developed and the many

perspectives, goals, and priorities currently being pursued, *Teaching and Researching Computer-Assisted Language Learning* fills a distinct niche in the ecosystem of CALL texts and is an important reference volume.

ABOUT THE REVIEWER

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