

Book review

Evaluating Computer-Assisted Language Learning: An Integrated Approach to Effectiveness Research in CALL, Jonathan Leakey and Peter Lang, 2011. 308 pp. ISBN 978-3-0343-0145-9, £41

Is Computer-Assisted Language Learning (CALL) an effective tool for Second Language Acquisition (SLA)? This question has generated much debate in recent years. Unlike traditional tools, such as ‘talk and chalk’ or course-books, a stronger case is required for CALL to be genuinely accepted as another standard SLA tool. Jonathan Leakey’s book is a welcome addition to the debate for two main reasons: firstly his approach combines current theories underpinning SLA with action-research principles and secondly he provides a relevant framework model for practitioners to evaluate CALL projects. As he states, it is less about ‘whether the computer itself can deliver improved learning gains’, but more exactly ‘whether an intelligent integration of good hardware and courseware and sound pedagogy can do so’ (p. 71).

Although well thought-through design models and systematic data collection are required in order to evaluate the efficiency of CALL, the goal of such endeavours needs to remain student progress. Leakey is not blind to the complexities that CALL evaluators and researchers face. Moreover, he endeavours to espouse relevant theories and current research approaches with case studies, practicalities and variables. His study is driven by the compelling need to systematically search for evidence of whether CALL improves language learning and if so, how. Furthermore, he proposes a prototype Model for Evaluation, (MFE) as an outcome of his own research.

Echoing Carol Chapelle’s (2001) request for documenting systematically how CALL affects language learning, Leakey provides an overarching view of how the debate originated, how it has evolved through the fifty years of the discipline’s existence and how Higher Education Institutions (HEI) in the UK have approached it.

This volume is divided into nine chapters. The introductory chapter, ‘The need for systematic quality control in CALL’, contains an outline of the research questions, methodology and case studies examined in the volume. This first chapter sets up the rationale for developing a systematic approach to evaluating new technologies applied to language learning from Computer Mediated Communication (CMC) to Mobile Assisted Language Learning (MALL). Building on the work of leaders in the field of CALL such as Pederson, Dunkel, Levy, Chapelle and Felix, the author wants

to investigate how to measure the complex conjunction of technology, humanities research and pedagogies in CALL. After establishing the complexity involved in measuring CALL effectiveness, the author makes it clear that the final goal of such research ought to be 'the progress of our students' (p. 7) not just the collection of statistical data.

Chapter 2, 'Swings, spirals and re-incarnations: Lessons from the past', continues and expands the literature review on SLA research and its applications to CALL. Leakey offers definitions and acronyms that help understand the concepts behind the terminology used from evaluation to data. The 'qualitative-quantitative' divide on research data collection is brought to fruition by advocating a combination of phenomenological (case studies) and positivistic (statistical) approaches, while focusing on what he calls the 'Three Ps': pedagogy, platforms and programs. A brief history of those variables frames the exploration of how they have influenced the language learner and language learning in the last fifty years. Following this, Leakey proposes a blended CALL approach as a way forward, based on cross-disciplinary research on Computer Assisted Learning (CAL). Further concepts associated with SLA and CALL are identified such as task, 'the point where learning and the learner meet' (p. 47), together with criteria for evaluating the appropriateness of CALL tasks. Despite asserting that 'there is at least a perceived importance of the role that the digital platform plays in the language learning process' (p. 54), the sections dedicated to the remaining Ps: platforms and programs seem shorter in comparison.

The third chapter, 'Has CALL made a difference: And how can we tell?', is an up-to-date account of key questions surrounding CALL debates. Leakey classifies them in four groups: 1) addresses the question whether CALL improves language learning; 2) aims to demonstrate learning gains by comparative evaluation; 3) focuses on methodology's combination to measure progress and 4) reflects whether the outcome or the process should be the object of research. Encompassing most of the research questions posed by these debates, Leakey moves on to stress the need for 'a matrix of theory-derived criteria for observing the CALL learning process, that is, the task, activity and experience' (p. 71). Concurrently, the quality control of CALL environments should be monitored in relation to the learner and the learning. The proposed model (MFE) is discussed in the following chapters.

Chapter 4, 'A model for evaluating CALL. Part 1: CALL enhancement criteria', presents the MFE₁ as the product of combining relevant research concepts and practical reviews of case studies examined closely in chapters 6 to 8. The evaluative process is divided into two routes: a primary one that considers twelve CALL enhancement criteria and a parallel route that addresses qualitative and quantitative aspects of CALL. The author meticulously justifies and correlates Chapelle's criteria against other sources (either case studies or relevant CALL literature) to derive the six additional evaluative principles; to include missing variables such as the digital learning environment. The parallel route provides a pathway for 'the evaluator who is interested in a more empirical, positivist study' (p.75). A series of tables and charts map this collation of performance indicators, evaluative principles and other descriptors, adding a welcome visual dimension to the theory being presented.

Chapter 5, 'A model for evaluating CALL. Part 2: Qualitative and quantitative measures', offers a detailed examination of research on CALL effectiveness by Chapelle, Pederson and Felix. By incorporating effectiveness research principles into a larger framework, Leakey outlines principles for a common empirical study agenda through qualitative and quantitative measures incorporated on the MFE. Researchers can consider a number of options to proceed with the design of a CALL evaluation from the initial diamond timeline (first step on the second route of the evaluative process flow chart), to the data collection methods checklist. Once more, the checklists and table figures provide an important visual aid to understand the evaluative model proposed. Chapters 6 to 8 are dedicated to case studies conducted between 2003 and 2006. The MFE₁ prototype was applied to these projects resulting in the improved MFE₂ discussed in Chapter 9.

Chapter 6, 'Case Study 1: Evaluating digital platforms', looks at 'Robotel and Melissi labs in some UK universities' (p. 134) as representatives of hard-wired and software solutions respectively. It also includes a phenomenological comparison of digital labs, Virtual Learning Environments (VLE) and Interactive Whiteboards, 'the main types of digital platform' used in education (p. 139). The CALL enhancement criteria discussed in Chapter 4 are applied as part of the MFE₁ to these case studies. Interestingly, it is noted that practitioners' usage of these platforms occasionally surpassed or diverted from the originally intended functionality (p. 149). Conversely, staff overlooked the potential for multimodality afforded by Melissi and acknowledged 'the lack of combined skills activities' (p.159) in their sessions. As Leakey emphasizes, 'institutional priorities, problems of technical installation, staff training, the management of staff expectations, and the existence or absence of a pedagogy-driven approach to use are all as important, if not more so than the array of functionalities a system may have' (p. 164). The remaining Ps, Programs and Pedagogy, will be the focal point in the case studies presented subsequently.

Chapter 7, 'Case Study 2: Evaluating programs', reports on applying the MFE₁ prototype framework on software for educative purposes such as TellMeMore (TMM) version 7. This is a networkable CD-ROM package limited to a digital lab environment, and TMM version 9 is an online conversion of TMM7. The different parameters and settings of both case studies encountered specific challenges that illustrate the benefits and constraints of evaluating CALL from a programs perspective, such as internal and external validity, integration on an assessed course of study, the length and timing of the project. Further tables and checklists are provided to describe the data collection, statistics and participation levels. One of the conclusions drawn echoes recent CMC studies that observe a shift in the teacher's role and identity: 'the switch to an online/distant tutoring mode may involve quite a conceptual and pedagogical leap' (p. 189).

Chapter 8, 'Case study 3: Evaluating pedagogy', addresses the last but not least P, pedagogy, and considers two projects undertaken by the University of Ulster during the transition from analogue to digital platforms using MFE₁. The first project, TOLD (Technology and Oral Language Development) tackled oral skills progression. The CALL treatment was applied in parallel with a control group and the results indicated that there was little statistical difference between individuals in both groups, although the control group indicated significant progress on oral sub-skills

such as fluency, content and grammar. Among other factors, Leakey suggests that lack of familiarity with CALL, together with the short length of the study and the difficulties in designing meaningful tasks may have influenced the results. The second project, BLINGUA was a longitudinal study (2 years) exploring how to identify benefits for specific individual learning needs and for particular skills. It aimed to develop and evaluate a blended language learning approach to CALL drawing on 'the strengths of both behavioristic and acquisition approaches and resources, and need not restrict itself to computer-based environments, resources and methodologies' (p. 221). Results showed that meaningful communication and full use of the multimodality capacities when designing tasks yielded better results for students' progress and satisfaction with the learning experience than previously.

The difficulty in isolating key variables and the small sizes involved in these case studies continues to undermine the external validity and transferability of these interventions, as Leakey acknowledges.

The concluding Chapter 9, 'A new framework for evaluating CALL', presents the enhanced prototype framework for evaluation (MFE₂) and richer checklists following the CALL enhancement criteria and the qualitative and quantitative measures discussed in earlier chapters. Leakey reiterates the need for the MFE₂ 'to be tested by others across all educational sectors (primary, secondary, tertiary and adult education), in the full range of existing CALL settings and resources, and targeting single or multiple language learning skills' (p. 247). He further proposes the prototype as a solution to establishing a research agenda that conforms to agreed standards. This call has been made repeatedly and Leakey has gone one step further by facilitating ready-made, well-informed tools that can shape and map the varied teaching and learning aspects of CALL by observing a similar protocol. If disseminated and adopted, the tools he provides in the form of Models for Evaluation (MFE₁ and MFE₂), will facilitate and standardize the collection and collation of evidence on CALL effectiveness.

Leakey provides a comprehensive review of the field by addressing difficult but unavoidable research questions. Although this book is by no means light reading, it does what it promises: it provides a 'theoretical introduction as well as practical tools (...) for assessing the value of computers in language teaching and learning' (p. 3). Those with a background in CALL as well as those new to the field would find that the author's methodical approach to key research questions makes this volume an excellent and practical resource for second language professionals. The checklists together with the methodological questions specified on the MFE₂ templates may also help education providers and institutions to evaluate CALL resources prior to investment.

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