Editorial

Replication and Evaluation in CALL

Dawn Bikowski and Mathias Schulze

With this thematic issue on replication studies in CALL, we would like to draw attention to the importance of looking back both in CALL research and the development of learning technology. Replicating CALL research and evaluating (commercialized) language-learning tools, software, systems, and environments afford engagement with past findings, outcomes, and results and, through this engagement, yield new insight into current and future language learning in technology-rich contexts. Caws and Heift (in press) argue that, although research and evaluation can be distinguished, in CALL, this distinction is not always clear cut. For example, researchers rely on the evaluation of learning outcomes, task designs, facets of complex learning processes in their studies; and software evaluators ground their reviews in research findings and often apply methods akin to those in applied-linguistics research. In this editorial, we will first introduce the theme of this issue – replication studies – and then announce CJ’s new conceptualization of its section on evaluation – the Learning Technology Reviews (formerly known as software reviews).

Replication studies

Serendipity? The first invited review article in the CALICO Journal was on replication studies in CALL (Chun, 2012). This was followed by a CJ editorial ‘Thirty years of the CALICO Journal – replicate, replicate, replicate’ (Smith & Schulze, 2013) and Porte (2013) presented replication research ‘as an accepted method of validating previous research’ (p. 10) in a brief paper in the same issue. Before you now is the thematic issue, which resulted from
the call for papers which the journal circulated soon after these two articles. This issue on replication studies in CALL starts off with the invited review article ‘Quantitative considerations for improving replicability in CALL and Applied Linguistics’ by Luke Plonsky. He argues that there are a number of methodological practices employed by CALL researchers that limit progress in the field. Plonsky illustrates these practices in two fictitious studies and concludes his discussion with a number of suggestions, three of which are worth repeating here: (1) avoidance of the exclusive reliance on reporting $p$ values and focusing instead on descriptive statistics including effect sizes and confidence intervals; (2) replication is best conceived of broadly such that all studies examining a similar set of variables are treated as replications because it will enable the researchers to think about their study as part of a larger empirical trajectory; (3) models and studies of language learning and use are inherently multivariate; hence more of our analyses ought to be multivariate as well. To this we would add that they should also be longitudinal.

In the first of four papers on replication studies, Linda C. Jones, Cheryl A. Murphy, and Amalie Holland investigated the quantity and characteristics of student language production, discourse functions, and morpho-syntactic features in three different discourse settings – face-to-face, lab-setting chatroom interactions, and any place/any device chatroom interactions, replicating Kern’s (1995) study. Findings underscored what Kern previously asserted: that face-to-face and chatroom settings tend to encourage and support slightly different goals associated with language discourse. Kern stated that more sophisticated conversation occurred in the chatroom setting. Jones et al. observed the same, but also noted that more conversational interaction took place within the face-to-face discourse setting and these students had more exposure to the language.

The article ‘Input and output grammar instruction in tutorial CALL with a complex grammatical structure’ by Joseph and Karina Collentine presents a study that replicates Collentine (1998), a classroom-based experiment framed within a larger discussion on the relative benefits of input- and output-based instruction. Their results indicate that, in the classroom and in a CALL environment, both input- and output-oriented approaches can promote the acquisition of a complex grammatical structure, if practice is meaningful (informed by psycholinguistic processing principles) and deliberate and if feedback is provided.

Glenn Stockwell and Yi Chun Liu replicate a study by Stockwell (2010) that examined how learners in Japan perceived the use of mobile phones for language learning and how willing they were to engage in the activities. This study, however, was conducted prior to the spread of smart phones and it focused exclusively on learners in Japan. In the current study the majority of
learners in Japan and Taiwan owned smart phones. The replication showed that even if the same tools are used in a comparable learning environment, the technologies will likely be used differently, and teachers need to be aware of the complete learning context to enhance usage as much as possible. Furthermore, opening channels of communication to be aware of learner preferences in the tools they use, and trying to allow learners freedom to adjust these to the preferences as much as possible, will likely lead to greater integration of mobile technologies into the larger language learning context.

In ‘Comprehending and learning from internet sources’, Susanne Rott and Bianca Gavin report on a conceptual replication of Goldman, Braasch, Wiley, Greasser and Brodowinska (2012), which sought to identify processing patterns of better and poorer learners as they attempted to comprehend and learn from seven textual sources on the Internet in their native language English. In their replication, they investigated how reading multiple Internet texts in the L2 interacts with sense making, monitoring, and evaluation processes. Also comparing better and poorer learners, they found that better learners used more varied reading strategies, more self-explanation and monitoring, and skipped more unfamiliar words. However, neither group of readers of L2 German employed reading and research skills that lead to a coherent intertext model meeting the task goal.

These four published studies are what we hope is the beginning of many replication studies in the CALICO Journal, which are conceptualized by researchers as, what Plonsky calls, part of a larger empirical trajectory.

Learning technology reviews

The review sections round out this issue. Jesse Gleason presents a book review of Languages for specific purposes in the digital era edited by Elena Barcéna, Timothy Read, and Jorge Arús. Michele Regalla evaluates Little Pim: A review of the French Teacher’s Kit and Audra Hilterbran offers an evaluation of HapYak Interactive Video.

The CALICO Journal has a long history of not only presenting new research on computer-assisted language learning, but also of providing language educators working in various contexts with the most current research-based approaches to teaching with technology. As technology and teaching approaches have evolved, so too has the Journal. One change we are excited to announce is the expansion of the ‘Software Reviews’ section into ‘Learning Technology Reviews’. This new format allows greater flexibility in the types of tools and resources that can be covered, reflecting changes in the field in terms of both technology and pedagogy.

As CALL has moved beyond instruction-only or drill-based software programs, so too the column has broadened to create space for reviews not only
on language learning software but also on digital resources that may not be designed specifically for language teaching, such as authoring tools, general online resources, or computational devices. The outline for the Learning Technology Reviews maintains its overall structure of General Description and Evaluation, but it has been adapted to be more inclusive of these new technologies, creating space for perspectives from teachers-as-materials-developers as well as educators. Many of these tools are not restricted to a single language and allow for increased opportunities for learner interaction, in what Kessler (2013) termed the ‘hyper-collaborative participatory culture that has become ubiquitous across the Internet’ (p. 307).

In his most recent Emerging Technologies column in Language Learning & Technology, Godwin-Jones (2015) explores the opportunities for language learners now available both inside and outside formal education offered by our increasingly interconnected world. He rightly argues that as second language teachers, we ‘need to be able to work effectively in this evolving environment, preparing students for work and life in a world likely to be quite different from that in which they grew up, and which is likely to continue to change in significant ways’ (p. 10). Our task as educators is to not only keep abreast of and evaluate new technological developments that can be used in pedagogically sound yet creative ways, but also to guide students in becoming global citizens (Kumaravadivelu, 2013) as they explore language learning and use in a variety of contexts. The new format for the Learning Technology Reviews offers us these opportunities. The Reviews are widely read – many of them are among the most frequently viewed and downloaded articles of CJ – and together with our readers, we are looking forward to informative reviews of new language-learning technologies. If you are interested in reviewing a particular learning technology, please contact our Learning Technology Review editor, Dawn Bikowski; the details are in our author guidelines (For Authors) on this website.

As always, we recommend this latest issue of CJ for your reading pleasure and hope you will find the articles and reviews insightful.

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References


