

COMMENTARY

DOES CALL HAVE AN ENGLISH PROBLEM?

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This paper asks whether computer-assisted language learning (CALL) has an English problem. It surveys the empirical studies published in four English language international CALL journals during the 4-year period (2012–2015) to see whether there was an upward trend in the overall number and proportion of studies investigating English as a target language. For 2012 and 2013, the proportion of English to studies of other languages was roughly equal. But published studies on English in 2014 and 2015 showed a noticeable increase. It then explores three cases in which an overemphasis on English fails to capture the cognitive and social issues around the use of technology for learning and teaching other languages. These include, for instance, the cognitive complexity of typing in character-based languages relative to typing in alphabetic languages, the culturally situated nature of feedback made available to learners using writing software, and teachers of languages other than English questioning the relevance of CALL for their local context. CALL journals both represent and shape the field, and when the vast majority of studies published in prominent international CALL journals explore primarily English as the target language, it may suggest that computer-assisted language learning is becoming synonymous with computer-assisted English learning.

Keywords: Less Commonly Taught Languages, Social Context, Teacher Education, Computer-mediated Communication

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INTRODUCTION

When reviewing manuscripts on various aspects of computer-mediated interaction for second language (L2) development, I have observed that a clear majority of these have English as the target language. I first attributed this to my own background in teaching English as a Second Language and the fact that most of what I have published has also focused on learning English. Perhaps those with a background in Spanish were receiving the studies on computer-assisted language learning (CALL) for Spanish learning that I was not seeing. However, outside of peer review, I've also become aware of what seemed to be an increasing number of studies of CALL that have English as the target language.

Perhaps it was just the focus of my reading that gave me this impression. However, at the latest editorial board meeting of *Language Learning & Technology* (LLT), I learned this was a concern shared by others. The editors had also noticed an increase in English submission over the past few years and while they were pleased to receive and publish rigorous and innovative research on technology for English language learning, they wanted to attract a wider range of languages represented in the articles submitted and published. Language learning with technology, after all, is not coterminous with English language learning with technology.

A TEMPORARY BLIP OR A GROWING TREND?

To see whether there was an upward trend in studies with English as the target language, I counted and categorized the target languages of articles published during a 4-year period (2012–2015) in four prominent English language CALL journals: *CALICO Journal*, *Computer Assisted Language Learning*, *ReCALL*, and *LLT*. I included only studies that analyzed primary or secondary data collected from language learners or language teachers and excluded the rest (i.e., editor's notes, theoretical or position papers, software and book reviews, commentaries). For each journal and year, I calculated the number of articles published on different target languages.

The first issue I encountered was the tendency for many studies with English as the target language to not explicitly state this in the abstract. While studies of other target languages nearly always referenced the language in the title or in a description of the participants in the abstract (e.g., intermediate L2 learners of Spanish), studies with English as the target language often merely identified participants as L2 learners—as if L2 learning and English language learning were synonymous. Here I must acknowledge that I have done the same in my own publications and vow to avoid this.

Fortunately, to help counter this very issue, *LLT* has recently begun explicitly identifying the languages learned in each published study just beneath the abstract of all articles. Nevertheless, it is almost as if researchers working in English comfortably embrace the idea that English language learning is an unmarked case when it comes to L2 learning. On a practical level, this may indeed be true. English language learning is big business, but when it comes to our understanding of L2 processes and outcomes, this is a troubling assumption. We need to do better.

Figure 1 illustrates the range and variety in target languages across the four journals. Over the four years investigated, English, of course, was present every year. However, so was Spanish, German, Japanese, French, and Chinese¹, though in much smaller numbers. 2013 included articles on Catalan, Ojibwe, Russian, and Finnish, three of which appeared in a special issue dedicated to less commonly taught languages (Volume 17, Number 1 of *LLT*). Also present every year were studies that contained more than one target language (one of which was always English). These included studies of e-tandem telecollaborations, with partnered classes learning the language of the other; comparative studies in more than one context; large scale surveys of participants across multiple courses or programs; and research syntheses, including meta-analyses, which reviewed a body of prior studies that addressed a common research question.

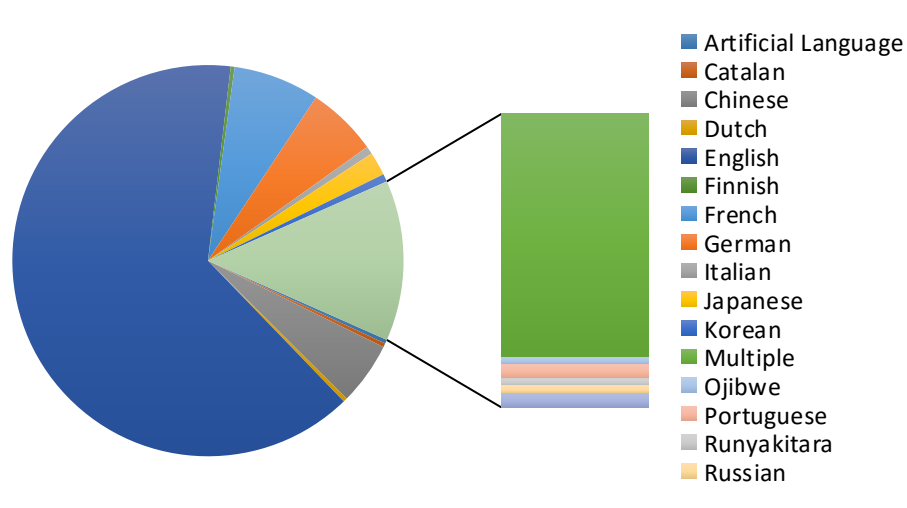
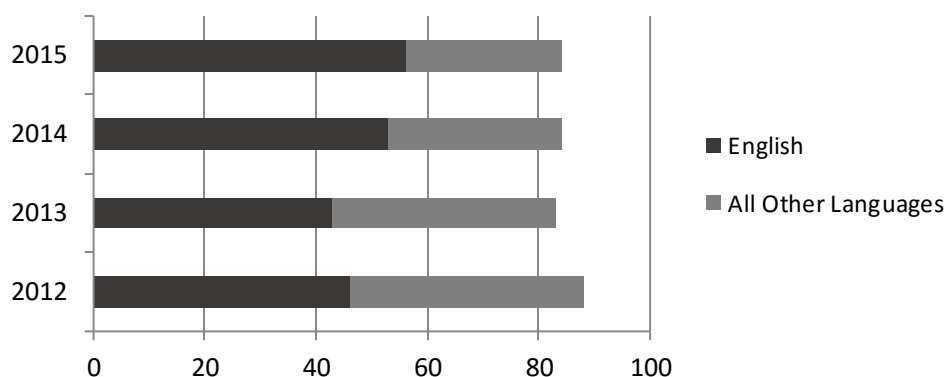


Figure 1. This figure depicts the breakdown in target languages in articles published in four international CALL journals from 2012–2015.

Overall, 16 different languages were identified, including one artificial language, one Native American language, one African language, three Asian languages, and 10 European languages. There were no studies on signed languages. However, as [Figure 1](#) also reveals, English was the target language 64% of the time during this 4-year period.

To examine whether this difference has been consistent or not, the proportion of articles with English as the target language over this 4-year period was determined. This is shown in [Figure 2](#). In both 2012 and 2013, the number of articles with English as a target language was roughly equal to the number of articles in which English was not the target language (46 to 42 and 43 to 40, respectively). However, this division shifted in 2014 and 2015 with English representing the target language of 63% (53 to 31) and 66% (56 to 28) of relevant articles during those two years, respectively.



[Figure 2](#). This figure depicts the change from 2012 to 2015 in the number of articles with English as a target language in four international CALL journals.

Although it is possible that this is a temporary blip, the fact that nearly two thirds of the articles published in these four CALL journals report on the learning or teaching of English is troubling. While research on English teaching and learning informs our understanding of the role and function of technology in language teaching, language learning, and teacher training, it paints an incomplete picture of the cognitive and social implications and complications mediating the teaching and learning of all languages with technology. These complications and implications include, for instance, the influence of multistep typing input methods for character-based languages on the complexity and accuracy of learners' writing, culturally situated feedback made available to learners using writing software, and teachers of languages other than English questioning the relevance of CALL for their local context.

Furthermore, when the articles published in the leading journals in CALL begin to appear too homogenous in this manner, it presents an overview of the field that is too narrowly focused on the issues and advantages of computer-assisted English learning and not computer-assisted language learning more broadly. The following examples are meant to illustrate a few ways in which the field may be underserved by too much emphasis on English.

TYPING INPUT METHODS AND TEXT-CHAT

Typing input method represents the intersection of hardware, software and orthographic system—an ideal area where CALL research on languages other than English can broaden our understanding of the influence of medium of communication on L2 processes and outcomes. In languages with phonographic writing systems, like English, only a relatively small set of base units (i.e., letters) are needed to encode meaning in written form (Zhao & Baldauf, 2008). Thus, learners preparing to text-chat or instant message in English only need to be familiar with fewer than 30 letters on a keyboard that are specific to the

language. In the case of Chinese, however, both semantic and phonetic information are encoded in a much larger number of base units (i.e., characters), requiring alternate keyboarding input methods than those required for English. Such alternate keyboard input methods vary widely and draw upon different types of knowledge. For instance, input methods that rely on ideographic information require learners of Chinese to be familiar with the number of strokes in a character and the ability to identify key components of characters responsible for semantic information (e.g., radicals). Other input methods that are arguably more accessible to L2 learners of Chinese do not presuppose knowledge of how to write characters but instead rely on phonetic information. Specifically, L2 learners can spell out the sound of the character and must then choose from a list of homophonous characters organized according to frequency. Such phonetic input systems therefore require L2 learners of Chinese to be able to recognize and select the correct character. Regardless of typing input method used, however, it is clear that L2 learners of Chinese who use characters during text-chat or instant messaging draw upon a greater breadth or depth of knowledge of the target language's writing system than do L2 learners of English interacting through the same digital tools.

These choices are further complexified for L2 learners of Japanese, a language whose writing system incorporates both logographic base forms (i.e., kanji or Chinese characters) and syllabic base forms (i.e., hiragana and katakana). Typing input methods for kanji are similar to those available in Chinese for characters, but Japanese also requires the use of hiragana to encode, for example, inflections for verbs and adjectives as well as many function words. Typing input methods for hiragana and katakana resemble those for alphabetic languages; therefore, text-chatting in Japanese may require speakers to negotiate two concurrent typing input methods. However, while these multiple input methods can be challenging, they also provide L2 learners of Japanese alternate methods for encoding meaning when text-chatting since hiragana that represent the sounds of the intended kanji can be used when learners know how to pronounce a word but are unfamiliar with the exact kanji used to represent its written form.

What these difference might mean for L2 performance and acquisition in text-chat interaction can be gleaned from research on typing, which has been described as a learned skill that is both “a mental and physical process” (Sturm, 2010, p. 1592) and a “form of motor behavior that requires extensive periods of training” (John, 1996, p. 20). It has been argued that the relationship between typing ability and text quality is due to demands on limited cognitive resources. For instance, novice typists have been found to demonstrate better recall when given the opportunity to handwrite than when required to type (Penney & Blackwood, 1989). This suggests that the attentional demands of one unfamiliar task (typing) reduces the availability of cognitive resources necessary for recall and retrieval. It is conceivable, therefore, that L2 learners of Chinese and Japanese who are less familiar with the typing input demands of these languages may have fewer attentional resources available to attend to their own output, thereby affecting their own output and their ability to attend to differences and details in the input.

As this discussion of Chinese and Japanese typing input methods illustrates, conclusions regarding text-chat and L2 processes and outcomes that draw mostly from studies of L2 learners of English cannot fully account for the experiences and development of L2 learners who text chat in languages with different or multiple typing input methods. As the following two sections illustrate, the emphasis on English in CALL journals also has social implication for those who look to CALL to guide teaching with technology and teacher training.

AUTOMATED WRITING EVALUATION SYSTEMS AND ACADEMIC WRITING

Another area of growth within CALL is that which examines software applications for academic writing such as automated writing evaluation (AWE) systems, which allow for prompt and systematic feedback on various aspects of academic writing (Li, Link, & Hegelheimer, 2015). Research within this area focuses almost exclusively on academic writing in English at the university level.

This primary focus on English as the target language responds to the increasing number of university students writing academic papers in English as a Second Language. This includes international students and generation 1.5 students at universities in English speaking countries (for the many various issues facing generation 1.5 in the United States, see Roberge, Siegal, & Harklau, 2009) as well as students in an increasing number of courses taught through English as a Medium of Instruction in countries and context where the first language or language of the community is not English (Dearden, 2015).

However, as Phillipson (2011) has argued, scientific writing, such as that found in academia, has not historically been the domain of a single language (English), and multiple countries and institutions strive to maintain a degree of multilingual or bilingual proficiency among students and researchers. CALL research that foregrounds tools for academic writing but focuses only on academic English, therefore, does not account for the academic writing process of international students and newcomers to these other contexts, nor does it account for the academic writing of those specializing in the study of foreign languages other than English.

While feedback on writing in these other languages can presumably be supported through AWE systems, differences in linguistic features, rhetorical structures, and educational norms may mediate the efficacy of such tools for the teaching of academic writing in languages other than English. Work in contrastive rhetoric attests to the different values and practices reflected in academic writing across languages and contexts. For instance, Fakhri (2009) provides an overview of salient features found in written Arabic texts including lexical and syntactic repetition, coordination, and structural parallelism while Liu and Furneaux (2014) identified differences in rhetorical techniques found in argumentative essays by native Chinese writers in both English and Chinese compared to native English writers in English. Whether AWE systems can prove effective in supporting the development of these linguistic and rhetorical features cannot be addressed by studies carried out on English language features and (often mainly American) English rhetorical structures.

Research on AWE for English academic writing, therefore, may at best illuminate some but not all of the experiences and challenges facing the incorporation of software for the development of academic writing in languages other than English. However, as the next example is meant to illustrate, the intersection of commerce, language, and technology can further complicate the relationship between language teacher training, language teaching, and CALL.

TEACHERS QUESTIONING THE RELEVANCE OF CALL

The social implications of a primary focus on English in CALL publications can also be seen in the challenges facing teachers and teacher trainers in the Swedish education system who seek solutions to a diversity of classroom needs, including those brought about by recent immigration to Sweden, a country with a population of 9.8 million. In 2015, of the roughly 163,000 people who sought asylum in Sweden, over 35,000 were unaccompanied minors (Migrationsverket, 2016). Under Swedish law, these children have the right to attend school in Sweden, often beginning with specialized training in Swedish as a Second Language (svenska som andraspråk or SVA) for up to two years (Flyktinggruppernas Riksråd, 2015). Even after two years of instruction, many of these students continue to need additional language support in Swedish and in their other subject areas, including math, science, and English.

As a teacher trainer and CALL practitioner in a large teacher education program in Sweden's third largest city and home to many of these children (Eurocities, 2016, April 12), I am keenly aware of the need to prepare pre-service teachers to work with the diverse linguistic needs of these pupils. This awareness influences the activities and workshops I develop, the assessments I design, and the readings I select for my courses. It is here that I encounter pushback from my student-teachers on the use of CALL activities and readings which they find interesting but not fully relevant for all their future pupils.

While Sweden openly embraces the integration of technology in classroom instruction, studies of English

in CALL journals often fail to illuminate technology mediated solutions to the challenges learners of less prominent non-global languages (such as Swedish) encounter. This includes, for instance, the more limited availability of Swedish language learning software, virtual environments, or online gaming spaces compared to those available for English learning. More relevantly, this also includes the lack of accessibility of popular or freely available language learning platforms or apps which teachers may be interested in using to supplement or support their own students' learning needs.

An example of this is Duolingo, a free language learning platform that incorporates gamified language skill-building through translation-based activities, first launched in 2012 (Garcia, 2013). Thanks to crowdsourced development of the app for different languages, a version for learning Swedish was released three years later in 2015. Duolingo therefore represents a language learning application that draws upon popular demand and interest, similar to other popular and marketable language learning applications and tools that find their way into studies of CALL. Like many other popular CALL tools, Duolingo has interfaces in a limited number of prominent, popular, or global languages, none of which are Swedish. For Swedish, the only available interface is English. Thus, learners of L2 Swedish must also know English in order to understand instructions, grammar explanations, word translations, feedback, and information on the gamified portion of the platform. When my pre-service teachers review Duolingo and other similar tools, many express frustration that such potentially motivating and free tools would not be accessible for their future pupils, whose knowledge of English will not be sufficient for them to use this app for the purpose of developing their Swedish.

These same concerns are also expressed regularly in response to many of the CALL studies my students read, and which examine interesting and potentially useful tools for English language teaching, but which often are limited in relevance or applicability for pre-service teachers specializing in SVA or foreign languages other than English in Sweden. As a result, therefore, these future teachers are coming to see CALL research as mainly relevant for English teaching but not for the teaching of other languages.

ADDRESSING THE ENGLISH PROBLEM

The preceding examples illustrate just a few of the cognitive and social challenges encountered in the use of technology for teaching and learning languages other than English (e.g., multi-step typing input methods, corrective feedback that is culturally situated, and finding digital tools that can help with the language learning needs of learners of non-global languages). They do not touch upon the language learning processes and outcomes associated with technology for the teaching and learning of signed languages, endangered languages, and languages without writing systems, among others. However, taken together, these examples highlight ways in which the English situation in major international CALL journals provides an incomplete picture of the scope and relevance of computer-assisted language learning.

Although studies of CALL for other languages are indeed being carried out, the vast majority of studies published in major international CALL journals address English, suggesting that the field of computer-assisted language learning is becoming synonymous with computer-assisted English language learning. Because international CALL journals both represent and shape the field globally, this global perspective should be reflected in the target languages of the studies published in these journals. We as CALL researchers should therefore consider where we choose to publish our computer-assisted studies of languages other than English and, where possible, should also consider expanding the target languages and learner populations we investigate. Instead of publishing studies on target languages other than English in language specific or national journals, consider submitting these to international CALL journals. Where possible, consider opportunities to collaborate and investigate populations of learners of multiple target languages or of less prominent languages and which represent the wide ranges of language learners in our local contexts. While certain target language learner populations may never be large enough to support certain types of generalizable studies, carefully designed case studies represent a means

of exploring the cognitive and social ramifications of CALL for language other than English, thereby broadening the scope and reach of our field.

NOTES

1. In some cases, it was not always clear which variety of Chinese was the focus. Therefore, I use the umbrella term Chinese to include studies with Mandarin, Cantonese, and other possible varieties of Chinese as the target language.

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