

# Planning for Future Inquiry: Gaps in the CALL Research

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## ABSTRACT

The body of research on CALL tasks and topics grows daily; however, there are still a number of areas that are underrepresented in the literature. While there are many gaps in the CALL research to address, this article specifically focuses on eight gaps, chosen because of their perceived importance in improving CALL evidence and research practices and, by extension, language teaching and learning. In presenting the gaps, each section in this article: 1) provides a rationale for exploring the topic, 2) briefly reviews studies that typify the extant research in the focal area, and 3) provides recommendations for future research. The purpose of this article is to encourage all stakeholders in CALL to join in the rigorous and multi-perspective exploration of these under-addressed areas and strengthen the use of CALL for language learning and teaching.

## KEYWORDS

Culture, Morphology, Multi-Modal Feedback, Paraphrasing, Research, Tasks, Teacher Education, Transfer, Virtual Environments

## INTRODUCTION

Researchers such as Leakey (2011) affirm that the use of computers in language teaching and learning can support learners' language achievement; Leakey points out benefits of computer assisted language learning (CALL) tasks for learning all four language skills and for pragmatic and culture gains. The author highlights, however, that "the body of empirical evidence, compared to other subject areas, is small" (p. 60). In fact, although the body of literature has grown since Leakey's statement and there is useful evidence in a number CALL research areas, the literature has yet to address many aspects of CALL. One underrepresented topic, for example, is the development and use of CALL tasks; aspects that include the topic, learning goals, activities, tools, environments, processes, outcomes,

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and assessments (Bygate, Swain, & Skehan, 2013). Gaps in the CALL literature do not only arise from unexamined topics, however; they are also caused by the way the research is conducted. The lack of research from different perspectives, both theoretical and methodological, means that we do not know as much as we could about using CALL with English language learners (ELLs).

In order to ensure the optimal development and integration of CALL, it is important that pedagogy be supported by sound evidence. There is still much to be researched in the process of strengthening our understanding of the potential impact of integrating CALL into the language learning process, and it can be useful to have a reminder of this. Therefore, while there are many gaps in the CALL research to address, this conceptual paper specifically focuses on eight gaps chosen by the authors because of their perceived importance in improving CALL research practices and, by extension, language teaching and learning. The authors, all CALL researchers, come from 7 different countries across 5 continents and from diverse educational contexts. The paper foci reflect topics that are personally relevant and that play a central feature in one or more of these contexts; because no one topic is more important than the others, they are not presented in any specific order. In presenting the gaps, each section in this paper: 1) provides a rationale for exploring the topic, 2) briefly reviews studies that typify the extant research in the focal area, and 3) provides recommendations for future research. The purpose of this paper is to encourage researchers, teachers, and students to join in the rigorous and multi-perspective exploration of these under-addressed areas and strengthen the use of CALL for language learning and teaching.

## Morphology

The first focus of this paper is the gap in the CALL research on the topic of morphology (the study of word parts and word formation).

### Rationale

Morphology plays an important role in language learning. Non-CALL studies (see, for example, Foorman, Petscher, & Bishop, 2012; Goodwin, Huggins, Carlo, August, & Calderon, 2013; Kieffer and Lesaux, 2012) suggest that if English language learners learn how to use morphology, it is possible for students to be able to communicate the meaning and the syntactic structures of the words through identifying the base word, the meaning of the prefixes, and the grammatical functions of suffixes. As Goodwin et al.'s (2013) note,

“the more they know regarding the many functions of morphemes such as the lexical (*un* + *friendly*) or syntactic information (*ly*) communicated through roots (*friend*), suffixes (*ly*), and prefixes (*un*), the more these English language learners can determine the meaning of unknown words and complicated syntactical structures within English text” (p. 1389).

Non-CALL studies indicate the significance of morphology for language learning. They provide a strong argument in favor of incorporating morphology tasks in CALL settings due to the benefits to language learning. However, CALL research does not currently integrate morphology-based tasks among its topics; data on practices, effectiveness, and benefits is also lacking in the CALL literature despite the wide availability of morphology software (e.g., Root to Words [<http://www.taptolearn.com/>]; Word Parts [see <https://www.wordparts.net/demo-videos/>]; and apps from lumos learning [<http://www.lumoslearning.com/llwp/educational-app-listings-for-students/prefix-and-suffix.html>]).

## CALL LITERATURE ON MORPHOLOGY

There are several studies that have mentioned, but not centralized, morphology. For example, Nerbonne., Dokter, & Smit's (1998) comparative study investigated whether natural language processing (NLP) can play a role in CALL through software called GLOSSER. Twenty-two adult Dutch students in a French language program were divided into groups and assigned to two reading tests: one on a computer using GLOSSER and the other on paper. The results indicated that NLP can play

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