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The Contribution of CALL to Advanced-Level Foreign/Second Language Instruction

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Jack Burston[1] and Kelly Arispe[2]

Abstract. This paper evaluates the contribution of instructional technology to advanced-level foreign/second language learning (AL2) over the past thirty years. It is shown that the most salient feature of AL2 practice and associated Computer-Assisted Language Learning (CALL) research are their rarity and restricted nature. Based on an analysis of four leading CALL journals (*CALICO, CALL, LL&T, ReCALL*), less than 3% of all CALL publications deal with AL2. Moreover, within this body of research, the range of languages involved is very restricted. Three languages, English, German and French, account for nearly 87% of the studies. Likewise, in nearly 81% of the cases, the learning focus is on the written language. Attention to oral-aural skills accounts for only 18% of all AL2 CALL projects. Whatever the targeted language or linguistic focus, the most striking aspect of advanced-level L2 CALL studies is the lack of information given regarding the competency level of students and the linguistic level of the activities undertaken. The determination of these critical parameters is thus of necessity very much a highly interpretive process. Based on the available evidence, it is estimated that half of the learners in these AL2 studies were in fact within the Common European Framework of Reference (CEFR) B1 range, i.e. below what would generally be considered as advanced-level competency. So, too, half of the assigned tasks were deemed to have been below the B2 level, with 40% of these below the B1 level. This study concludes that both quantitatively and qualitatively the contribution of instructional technology to advanced-level L2 acquisition has been very limited.

Keywords: CALL, advanced, language, competence, research, CEFR, ACTFL.

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1. Introduction

This paper evaluates the contribution of instructional technology to AL2 over the past 30 years. It draws upon 47 Advanced-level second language papers found in four prominent journals (*CALICO, CALL, LL&T, ReCALL*), which constitutes 2.6% of their total 1840 publications from 1983 to 2015. At 5.3%, *LL&T* had the greatest proportion, with *CALICO* at 3.7%, *ReCALL* at 3.2% and *CALL* at less than 1%.

The CALL literature in this study includes only seven AL2, with English as a Foreign or Second Language (EFL/ESL) alone accounting for nearly 62% of all publications (Figure 1). This is followed in a distant second and third place by German (13.5%) and French (11.5%). Four other languages complete the inventory: Spanish (6%), Chinese (4%), and Arabic and Russian at less than 2% each.

Figure 1. Advanced-level languages

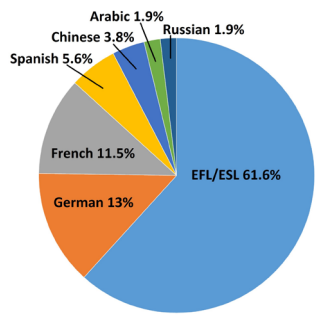
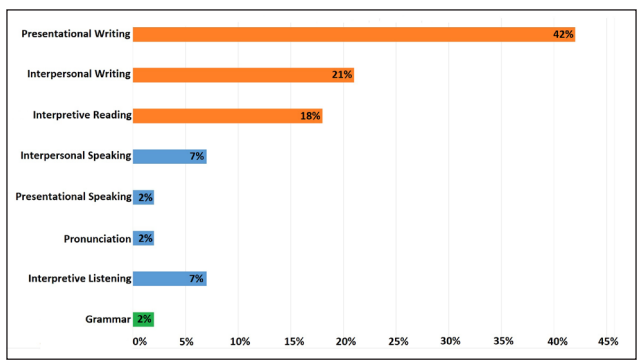


Figure 2. Pedagogical focus



In all, nearly 81% of AL2 studies focused on the written language (Figure 2), of which presentational and interpersonal writing accounted for 63% and reading 18%. In contrast, presentational and interpersonal speaking, pronunciation and listening together were targeted in only 18% of the studies. One paper focused on basic grammar.

2. Pedagogical focus details

2.1. Written language

Beginning with the predominant written language paradigm, a closer inspection of the 24 AL2 studies that focus specifically on presentational writing skills reveals that 13 involve collaborative composition activities [3, 13, 14, 19, 22, 24, 27, 29, 30, 36, 39, 40, 43][3] and 11 individual writing exercises [4, 5, 6, 7, 9, 11, 23, 32, 37, 41, 47].

A number of the studies that specifically target presentational writing [29, 30, 36, 40] also involve written interpersonal communication. However, ten of the written interpersonal communication studies [1, 2, 10, 17, 25, 26, 35, 38, 42, 44] focus on text-based Computer-Mediated Communication (CMC) (i.e. chats, discussion forums, blogs) which target interaction that does not result in any formal written production. The emphasis on the written language is further extended in ten studies that target reading comprehension of online texts [12, 15, 16, 18, 20, 28, 30, 33, 34, 37].

2.2. Other language areas

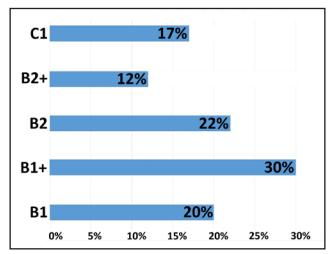
In all, only ten studies devote any attention to aural/oral skills. Only one study [30] focuses on presentational speaking, in combination with presentational writing. In all, four studies involve interpersonal speaking, three [24, 30, 36] in conjunction with presentational writing and the fourth [31] with listening comprehension. Besides the latter [31], three other studies also target listening comprehension [8, 30, 45]. The tenth aural/oral study [21] involved pronunciation correction. Lastly, one study was grammar-based [46].

3. In order to not encumber the text with long bibliographical citations, references in this meta-analysis are made to the number in square brackets which precedes each entry in the References section.

3. Student language competency level

The AL2 CALL publications in this study are frustratingly imprecise in identifying the language competency level of students. Of the forty-seven papers involving pedagogical implementations analysed in the present study, only nine [15, 16, 17, 21, 27, 33, 37, 46, 47] explicitly substantiate student L2 competency by reference to objective external test results (e.g. TOEFL scores). Another 12 [2, 7, 8, 10, 11, 12, 24, 28, 31, 34, 35, 39] specifically identify the competence level of their students (e.g. advanced-low, B1, etc.), but without any corroborating evidence. In the remaining 26 studies [1, 3, 4, 5, 6, 9, 13, 14, 18, 19, 20, 22, 23, 25, 26, 29, 30, 32, 36, 38, 40, 41, 42, 43, 44, 45], the competency level of students can only be determined based on circumstantial evidence (e.g. graduating L2 majors, students in an AL2 graduate course, etc.). As can be seen in Figure 3, based on the information that could be gleaned from these studies, the competence level of half the students described as advanced-level learners was in fact within the B1 range on the CEFR scale, which is to say at a level where they could at best 'communicate essential points and ideas in familiar contexts'. Only a third of the students were in the B2 range, i.e. a level generally acknowledged as advanced. The remaining 17% were at the C1 level, i.e. 'effective operational proficiency'.

Figure 3. Student L2 competency level



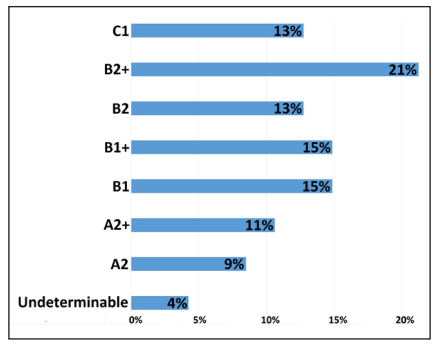
4. Language activity level

Even more so than with the definition of advanced-level competence in the description of AL2 CALL studies, identification of the linguistic level of the actual language activities undertaken by students in the projects leaves much undetermined. In fact, of the 47 implementation studies, only one [34] explicitly identified and substantiated task level with reference to an objective external metric. Three others [9, 12, 43] defined the task level explicitly, but without any substantiation. The task level of the remaining 43 (92%) could only be determined

through interpretation of the activities undertaken. In all but two cases [38, 40], this nonetheless provided a reasonable estimate of task difficulty level upon which the following analysis is based.

As indicated in Figure 4, the estimated range of language activity levels in AL2 CALL studies extends from A2 to C1, of which half are below the B2 level.

Figure 4. Task level



5. Conclusion

In evaluating the contribution of CALL to advanced-level foreign/second language instruction, this study has considered a number of interrelated factors as manifested in the published research of the four most prominent CALL journals (*CALICO, CALL, LL&T, ReCALL*) over the past thirty years. As documented, AL2 barely merits a mention in the published CALL literature. Moreover, such research as exists is extremely limited in the L2 studied, with English by far being the center of attention, followed distantly by German and French and four other languages. So, too, four times as many studies focus on the written language compared to aural-oral skills. Even more seriously, AL2 CALL studies are plagued by vagueness as to what constitutes an advanced level of foreign language competence and the difficulty level of the language activities their students were required to undertake. Notwithstanding, a close analysis of these studies allows these critical parameters to be determined with reasonable accuracy. Specifically, it is shown that in half the cases student competence and their assigned tasks were advanced only to the extent that they were above the A2 level. In sum, it must be concluded that to date, CALL has contributed very little to either our understanding or practice of advanced-level foreign/second language instruction.

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