Input enhancement meets ICALL: Theoretical and methodological implications

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Previous research has demonstrated the potential for intelligent computer-assisted language learning (ICALL) to support L2 development (Schulze & Heift, 2012). While much of the ICALL research has focused on Tutoring Systems analyzing learner language to provide feedback, another, more recent ICALL strand analyzes authentic native language texts to provide learners with enhanced input (Meurers, 2012). Although evidence suggests that the benefits of input enhancement (IE) may be increased within a CALL context (e.g. Russell, 2012), few studies have empirically examined such IE – an important missed opportunity, given the inconclusive evidence and call for more research (Lee & Huang, 2008). In addition, relatively little research has directly examined the potential theoretical and methodological contributions of ICALL research to SLA (Heift, 2010; Schulze, 2008). Thus, the current study seeks to: i) extend previous research by empirically examining the efficacy of computerized IE on the development of L2 grammar, and ii) explore the promise for research at the interface of ICALL and SLA.

This study follows a pretest/posttest design to examine how automatic IE provided by the WERTi system (Meurers et al., 2010) impacts L2 learners’ implicit and explicit knowledge of English articles. Fifty intermediate learners of English were assigned to one of five conditions: Colorizing, clicking, multiple-choice, fill-in-the-blanks, or control (each n=10). Participants selected and read 30 texts during the two-week treatment. Results indicate that participants in the fill-in-the-blank group developed implicit knowledge while the explicit knowledge of learners in the multiple-choice condition improved. In addition, a linear mixed-effects model of the incremental process of learning (as reflected in the system interaction log) showed a significant increase in accuracy for the clicking group. Findings are discussed in terms of theoretical and methodological implications, and suggestions are made for future research conducted at the intersection of computational linguistics and SLA.

Keywords: Research methods, SLA, implicit and explicit knowledge, ICALL.