

An ICALL writing support system tunable to varying levels of learner initiative

Karin Harbusch* and Gerard Kempen**

** Computer Science Department, University of Koblenz-Landau, Germany*

harbusch@uni-koblenz.de

*** Max Planck Institute for Psycholinguistics, Nijmegen and
Cognitive Psychology Unit, Leiden University, The Netherlands*

gerard.kempen@mpi.nl

Abstract

ICALL systems that provide L2 learners with feedback on the grammatical quality of the sentences they are writing, should aim at a high level of relevance and accuracy, and be tunable to the level of grammatical knowledge and the learning strategy of the student. We present and demonstrate the prototype of a writing support system whose feedback is computed by a natural-language sentence generator that online monitors the student's sentence construction process. Students do not compose a sentence directly by typing a string of inflected words but indirectly by first organizing those words into a syntactic dependency tree corresponding to the intended meanings; then, they produce the final sentence by ordering the branches of the tree from left-to-right. All this is done by drag and drop, without typing. The dependency tree enables the system to precompute the set of all well-formed sentences with the intended meaning, and to provide well-targeted online feedback when the student attempts a sentence not in the set. We claim that this approach enables the development of ICALL software that can be tailored relatively easily to different learning strategies. We demonstrate the prototype of our ICALL system which supports native speakers of English in writing German, and show how it can be parametrized to embody learning strategies that vary with respect to the level of learner initiative.