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Syntactic Processing Skills: Engine for Acquiring Knowledge

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Abstract

Our team proposed a Reading Skills Test that assesses cognitive academic language skills from six perspectives: syntactic comprehension, referential resolution, paraphrasing, inference, matching textual and non-textual information, and reading and understanding definitions. Each test item consists of a 100-word description and a multiple-choice question that tests one of the abilities from the above six perspectives. Subjects solve the test items, which appear one after another on the browser based on item response theory. We have confirmed that this test meets the desirable properties of an assessment test and have demonstrated that the syntactic processing ability measured by this test has improved yearly from the fifth to the ninth grade. Furthermore, we found that the characteristics of the subjects as measured by this test reflect syntactic processing ability independent of vocabulary and academic knowledge.