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The Effect of CSAL AutoTutor on Deep Comprehension of Text in Low-Literacy Adult Readers

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Abstract: It is well documented that reading strategies of low-literacy readers are suboptimal when text requires deeper levels of comprehension. Deep comprehension demands causal or goal-oriented reasoning and functional conceptual knowledge. Alternatively, shallow comprehension entails recall of definitions or text features without necessitating a coherent understanding of the text. The Center for Adult Literacy (CSAL) AutoTutor is an interactive intelligent tutoring system designed to foster deep and shallow comprehension in low-literacy readers. The present work represents the first empirical study of the effect of CSAL AutoTutor on comprehension type in low- and high-literacy readers. Community members and students interacted with CSAL Autotutor and then were assessed on recall ability for the structure (shallow) and meaning (deep) of sentences from lesson text. Preliminary analysis suggests CSAL AutoTutor promotes comparable deep level comprehension in low- and high-literacy readers. Implications for CSAL AutoTutor as a literacy intervention and future goals are discussed.