Preparing English as a Second Language Students for College Level Math

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Abstract
This research was developed as the result of a grant from the Gates Foundation for an Integrated Basic Education Skills Training (IBEST) On Ramp Math Program. The primary focus was to prepare ESL (English as a Second Language) students at CASAS levels II and III (levels II and III are low level English speaking students that have learned basic phrases and sentences in English) for a pathway to college level mathematics at Lake Washington Institute of Technology based on Washington State CASAS testing for college level mathematics. CASAS is a nonprofit organization, which provides basic skills testing to education institutions in the U.S for native or nonnative English speaking students. Researchers incorporated the use of ESL teaching methodology along with an emphasis on applied mathematics in a contextualized format. All mathematics materials utilized were created specifically for the On Ramp Math Program Math 70 course. Finally, a computer-learning platform was integrated with contextualized mathematics for ESL students in the class. Results from the research indicated a mean CASAS pretest score of 208 increased to a mean score of 227 on the CASA posttest for the ESL On Ramp Math Program students with a significance value of $p = 0.02$.

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