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Longitudinal growth on curriculum-based measurements mathematics measures for early elementary students.

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Summary: This article describes a study addressing how Curriculum-Based Measurement mathematics measures function as screening tools for students in grades Kindergarten through 2 over time, and for students in different demographic groups. Specifically, the research questions were: (1) What growth rates are produced for Curriculum-Based Measurement early numeracy measures and are these growth rates significant? (2) Do growth rates for Curriculum-Based Measurement early numeracy measures vary by demographic factors such as gender, race, and lunch status? To answer these questions, predictive validity across multiple years was examined for close to 1000 students in grades Kindergarten through 2 on mathematics measures that included Counting, Number Identification, Missing Number, Quantity Discrimination, Number Facts, Next Number, Computation, and Concepts problems. For all grades, results indicated that some measures increased significantly over time. Differences were observed for students at baseline by gender and lunch status and these covariates also produced differences in growth rates, depending on the measure. Implications for future research and practical implications for early identification and for use by teachers are addressed.

Classification: D61 D62 F21 F22 C61 C62

Keywords: curriculum-based measurement; early numeracy; demographic factors

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