

USING ASSESSMENT DATA AND PROBLEM ANALYSIS TO MATCH INTERVENTIONS
TO SKILL DEFICITS

by

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This study investigated the potential advantages of using Curriculum Based Measurement (CBM) and problem analytic frameworks when selecting early numeracy interventions. One kindergarten student was evaluated across treatment phases that were either matched or un-matched to the participant's skill deficits. The Instructional Hierarchy (IH) and conceptual and procedural heuristic were applied to problem analytic procedures. The participant was identified as having an acquisition deficit in number identification skills. These deficits were determined to be both conceptual and procedural in nature. Therefore, interventions were only matched along the lines of the IH, with the acquisition intervention being selected as matched, and the fluency intervention being selected as un-matched. Baseline and treatment phases were delivered in a hybrid ABAB reversal design with an alternating treatments component. Since skill deficits were found to be both conceptual and procedural, hypotheses regarding matched and un-matched conceptual/procedural interventions could not be tested. Conceptual and procedural interventions were both provided as matched interventions and potential differences were still explored in the study. The study hypothesized that matched interventions would lead to greater growth on the dependent variable -- number identifications per min. However, no differences were found

between matched- acquisition and un-matched- fluency interventions. Interpretations of the findings and study limitations are discussed, as well implications for practice and research.