### Introduction

Rapid Automated Naming (RAN) is a task that involves reading and naming aloud strings of letters (1998). Although RAN is typically administered to younger children, it is also used with older students (e.g., middle and high school) and adults. RAN is a useful tool for educators to screen for reading difficulties as it is not reading itself but rather a skill that is required for reading. RAN is considered an early literacy skill and is often used as a predictor of reading outcomes. Research has shown that RAN is a strong predictor of reading skills, especially for students with dyslexia.

### Acadience RAN

With Acadience RAN, students begin with RAN Objects and move to RAN Letters. RAN Numbers is only administered to students who discontinue on the RAN Letters task. Designations for each measure are provided in Acadience RAN Assessment Manual (Powell-Smith et al., 2020), available from www.acadiencelearning.org. The RAN Objects task is administered for a predetermined middle, and end of kindergarten and first grade. Administration of the RAN Measures is a test of the student's ability to maintain the correct pace of naming while ensuring the student is naming the correct items. Administration of the practice pages is designed to ensure that the student is ready for the main activity and to allow the examiner to practice testing according to the RAN test administration guidelines. The RAN Numbers task is administered as the final task. With the RAN Numbers task, the student is shown a page containing five numbers (i.e., objects, letters, or numbers) repeated at random over 10 items and is asked to name the items as quickly as possible. The following formula is used for calculating the RAN score: 

\[
\text{RAN Score} = \frac{\text{Total Time (in seconds) - (Total Missing + Total Wrong)}}{10}
\]

### Acadience Reading K–6

Acadience Reading K–6 assesses the essential early literacy and reading skills identified by the National Reading Panel (2000) and National Research Council (2000), which includes phonemic awareness, phonics, alphabetic principle and phonics, accuracy and rate of reading, comprehension, and fluency. The goal of this measure was to examine the extent to which Acadience RAN predicts later reading outcomes while controlling for existing measures of reading.

### Analyses

The incremental validity of Acadience RAN was tested by examining a series of regression models for the incremental (i.e., Acadience Reading Composite Score minus RAN) as a function of the (1) mean RAN score over kindergarten and beginning-of-first-grade, (2) mean RAN score over kindergarten, and (3) mean RAN score at the end of first grade. The mean RAN score was calculated by averaging the RAN score over the three time points (i.e., kindergarten, beginning-of-first-grade, and end of first grade). The models were tested using hierarchical multiple regression analysis.

### Results

The results of the models described are displayed in Figure 1-4. The RAN derived from Acadience Reading Composite Score was added to each regression model in order to control for the concurrent RAN effects. The RAN score was used as a covariate in all regression models.

### Table 1

<table>
<thead>
<tr>
<th>Measure</th>
<th>Time</th>
<th>Total</th>
<th>Missing</th>
<th>Wrong</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNF</td>
<td>X</td>
<td>0.50</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>RCS</td>
<td>X</td>
<td>0.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAN</td>
<td>X</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Summary

We examined Acadience RAN with respect to being able to predict future reading outcomes, even controlling for concurrent reading skills. We found that Acadience RAN adds powerful predictive capability above and beyond the Acadience Reading Composite Score. The prediction ability was present both when predicting the Reading Composite Scores and classifying student benchmark status. However, the incremental validity for predicting later reading outcomes, independent of the RCS or LNF, was relatively weaker for concurrent reading skills. We found that Acadience RAN adds powerful predictive capability above and beyond the Acadience Reading Composite Score. The prediction ability was present both when predicting the Reading Composite Scores and classifying student benchmark status. However, the incremental validity for predicting later reading outcomes, independent of the RCS or LNF, was relatively weaker for concurrent reading skills. We found that Acadience RAN adds powerful predictive capability above and beyond the Acadience Reading Composite Score.