INTRODUCTION

Approximately 5% of the school-age population has reading difficulties (RD), and a majority of these struggling readers’ difficulties are at a basic word level. Although phonological awareness is considered a core cause of poor word reading, there is little knowledge about what other basic cognitive processes are involved in children learning to decode. The purpose of this project, therefore, is to understand those cognitive processes and to identify early predictors of RD. Our focus is dynamic assessment (DA). In contrast to conventional assessments where independent performance is measured, DA measures the learning potential (i.e., responsiveness) by integrating instructional prompts within a test. Examiners no longer stay neutral, but interact with examinees. In this way, DA indexes the individual’s learning potential by quantifying gains during a testing session in response to the interaction. Learning potential measured via DA is one of the important sources of individual differences in reading development. For example, consider two students who perform similarly poorly on a conventional reading assessment. Given instruction, one may be able to reach at a desired competence level, whereas the other may not.

In this study, we developed a DA that taps basic processes children have to learn to decode: learning symbol-sound correspondences, blending, and understanding a decoding rule. Then, we examined whether the DA of decoding provides unique information about individual differences in word reading development that other conventional measures cannot explain. If so, DA may be used to improve early prediction accuracy for children with RD.
METHOD

In the fall of first grade, we asked 112 students to participate in two 1-hour testing sessions. The tests administered in these sessions included a DA, a variety of measures conventionally used to predict students’ achievement or determine at-risk status. In the spring of first grade, we again administered decoding and word recognition measures to understand the role of DA in predicting growth in word reading. Using the test results, statistical analyses were conducted to describe the relations among measured variables.

RESULTS AND DISCUSSION

DA used in this study provided unique information about individual differences in learning to read beyond that which can be explained by phonological awareness, oral vocabulary, nonverbal reasoning, and attentive behavior. Moreover, we were better able to forecast future word reading development using DA. How students performed on DA in the beginning of first grade was predictive of how well students can read in the end of first grade beyond their current level of word reading skill.

These results helped us to understand early indicators of word reading development and the important role of DA. That is, there are important cognitive skills involved in students learning to read words other than phonological awareness, and learning potential for decoding (measured via DA) is one of them. Thus, by administering DA, teachers may gain a comprehensive picture of students’ word reading skills and help early identify students who may have difficulties in learning to read.

Although our findings may not be integrated directly to daily classroom teaching, there is an important implication for practice. Results suggest that DA has a potential to be used as a helpful screening tool that can supplement existing measures. If we can correctly identify students who might struggle in reading early on in the beginning of first grade using DA, we can provide appropriate levels of instruction in a timely manner. Similarly, because DA measures students’ responsiveness to instruction directly as part of a test, DA may serve an important role in the response-to-intervention model.