

# SPEECH RECOGNITION TO IDENTIFY YOUNG CHILDREN AT RISK FOR READING DIFFICULTY

## *The ReadNet Project*

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### IDENTIFY RISK FOR READING DIFFICULTY

Risk for reading difficulty needs to be identified in kindergarten. Educational programs that help children at risk for reading difficulty are most effective in kindergarten and early grades.



### SCALABLE SCREENING FOR RISK FOR READING DIFFICULTY

Over 40 states have passed legislation requiring screening for risk for reading difficulty in kindergarten so that children can receive support as soon as possible. This will require new technology that can be readily used by teachers and students in the classroom.

### WHY SPEECH RECOGNITION IS IMPORTANT FOR SCREENING

Few children arriving at kindergarten can read many words, so assessment involves children performing tasks, like repeating words, that measure spoken language skills essential for learning to read. Speech recognition could score such spoken answers in the classroom and provide immediate information for the teacher.



### IDENTIFICATION OF CHILDREN AT RISK

Current screening measures overidentify children at risk for reading difficulty. Speech recognition analysis of child performance on screening measures might improve the accuracy of identifying children at true risk for reading difficulty.

### READNET PROJECT

ReadNet will integrate longitudinal data of children's reading and language skills from kindergarten through third grade along with speech data and home environment data. ReadNet will be open data for data scientists to test new screening algorithms and to use a large speech recognition database to test and improve speech verification accuracy.



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