

# THE SCIENCE OF LEARNING: PRE-K AND EARLY LITERACY

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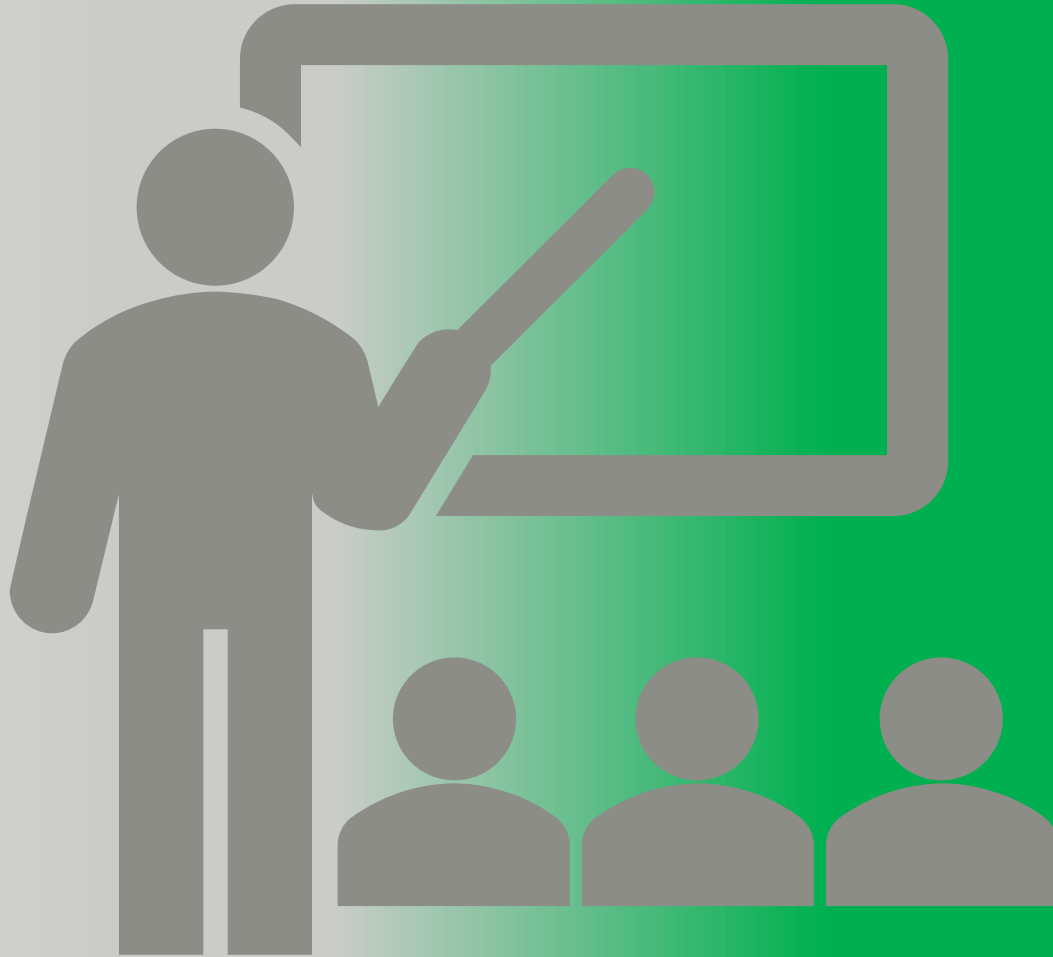
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## How to improve reading achievement?

- There are only three things that have ever been found by research to consistently improve reading achievement
- Policies that support increases or improvements in these three things have the best chance of success



## 1. Increase the amount of instruction

- Amount of teaching students receive is a major determinant of learning
- Policies that support increased instruction (e.g., preschool, full-day kindergarten, extended school year, summer school, afterschool programs) are usually successful
- However, the key is academic learning time (ALT) not allotted time, so simply buying more instruction will not necessarily be successful



## 2. Emphasize key aspects of curriculum

- Time is a dosage not a variable
- Research finds causal connection between teaching these components and improved reading (phonemic awareness, phonics, oral reading fluency, vocabulary, reading comprehension, writing)
- Policies that increase instruction in these components tend to lead to improvements in reading achievement



### 3. Quality of instruction

- Not all instruction is equal
- Some instruction is more efficient or more effective
- Quality of instruction affects learning, so policies aimed at improving teacher education and professional development, or aimed at providing supportive instructional materials and supervision have potential for improving achievement
- There are quality issues specific to the curriculum components mentioned as well as to more general quality features

# Final thoughts

- According to the National Assessment, American schools successfully improved reading achievement for young children during the period 1992-2006 (since then it has languished)
- Reading achievement for middle and high school students has not risen as a result
- Improving the reading achievement of young students alone has not been sufficient to produce a more literate population
- Policies not only are needed to promote improved primary grade reading achievement, but that will support/encourage/require teachers of older students to build on this early success