

Background: National reading scores have remained stagnant since 1992. 2019 NAEP reported 65% of 4th graders are reading below proficient levels.

Interactive Read Alouds (IRA) have demonstrated positive outcomes in oral language, print concepts, vocabulary, and incorporating science and social studies concepts in hopes to diminish the “fourth-grade slump”.

This study examines the effect of knowledge-based curriculum using science IRAs on vocabulary and listening comprehension outcomes.

Methods: Quasi-experimental design with assignment at the teacher level. Six teachers (3 intervention and 3 BAU) participated in the four-week study.

Three ANCOVAs were conducted using pretests researcher-created vocabulary, content, and aims web vocabulary as covariates.

Outcomes: Researcher created vocabulary and listening comprehension.

Participants: 89 preschool students participated. The study was conducted in five schools in a Title I district within Southeastern part of Tennessee.

The Effect of a Knowledge-Based Curriculum Using Science Read-Alouds on Vocabulary and Listening Comprehension Outcomes with Preschoolers

Nicole Crouch
Middle Tennessee State University

Research Questions

- What is the effect of a knowledge-based curriculum with interactive science read-alouds on a researcher-designed vocabulary outcome?
- What is the effect of a knowledge-based curriculum with interactive science read-alouds on a researcher-designed vocabulary outcome?
- What is the effect of a knowledge-based curriculum with interactive science read-alouds on a researcher-designed vocabulary outcome?

Results



Statistical differences between Intervention and BAU

Researcher-created vocabulary measure
Approaching Statistical differences on researcher-created content



Effect Sizes

Researcher-created vocabulary- $d = 0.68$
Researcher-created content- $d = 0.39$
Researcher-created listening comprehension- $d = 0.07$

Summary:

- Both groups demonstrated positive growth in all outcomes
- Intervention outperformed the BAU on researcher-created vocabulary and content measures
- There were no statistical difference between the groups on the listening comprehension measure

Limitations/Delimitations/Future Research:

- Short duration-extend duration to 6-9 weeks including multiple units of study.
- Lack of randomization at the student level
- COVID-19 guidelines limited researcher access, standardized measures, and concern for schools being closed or going virtual during the study
- With longer intervention-include standardized vocabulary measures