Understanding Variation in Program Impacts For English Learners: What Does the Research Say?

Preliminary Findings and Implications for Practice

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Roadmap/Agenda

- Background and Motivation

- Approach

- Initial Findings

- Takeaways for Practice

Note. Placeholder for notes, sources, and permissions (if needed). "Note." (including a period) is italicized.
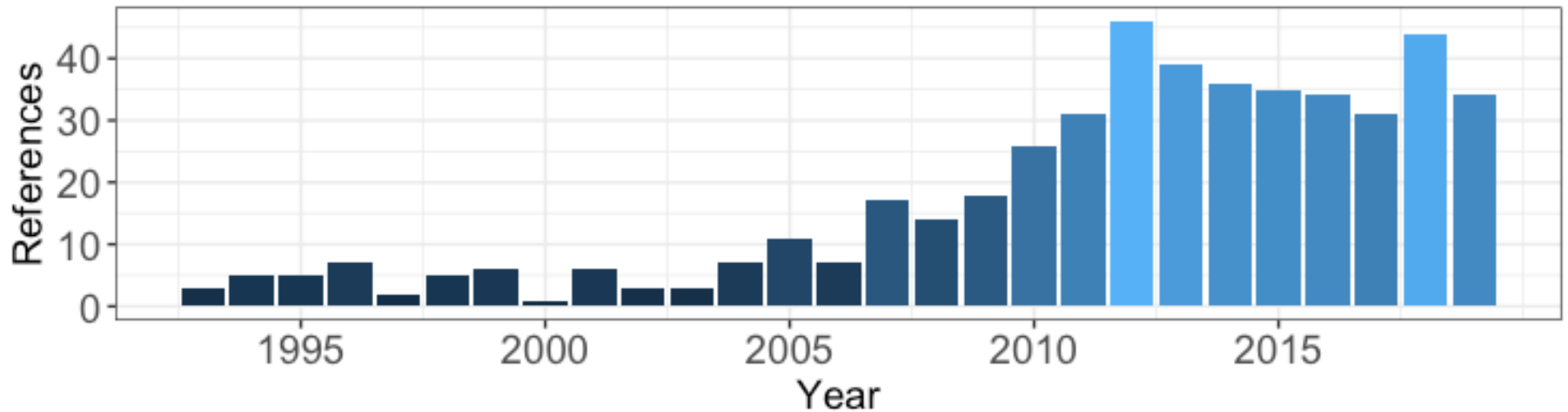
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Background and Motivation

What are we learning about the most effective ways to serve English learner students?

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- In general, the current research suggests substantial variation in program impacts.

- Prior reviews of the research have tended to focus on what we are learning about program effects *on average*.

- **To support educators and policy makers, we need to better understand what the research says about what works, where, and for whom.**

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Study Objectives

- Our goal is to identify factors that help explain program impact variation using a broad systematic review and meta-analysis.

- The study is guided by Cronbach's (1982) units, treatments, outcomes, and settings (UTOS) framework for generalizability

  – That is - what works, for whom, and under what conditions?

Research Questions

1. How are program impacts related to:

    a. Study features?

    b. Student or school characteristics?

    c. Program type and program features?

    d. Types of outcomes measured?

    e. Study settings or context?

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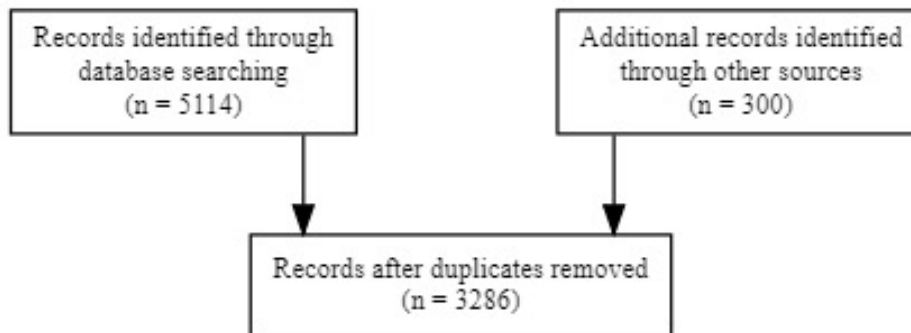# Approach

What is Meta-Analysis?

- Meta-analysis is a statistical method for combining results across multiple studies.

- Outcome results using different measures across different studies are first standardized into **effect sizes** so that they can be analyzed together.

- This allows us to build knowledge by analyzing results over multiple studies, enabling a more comprehensive understanding of research findings.
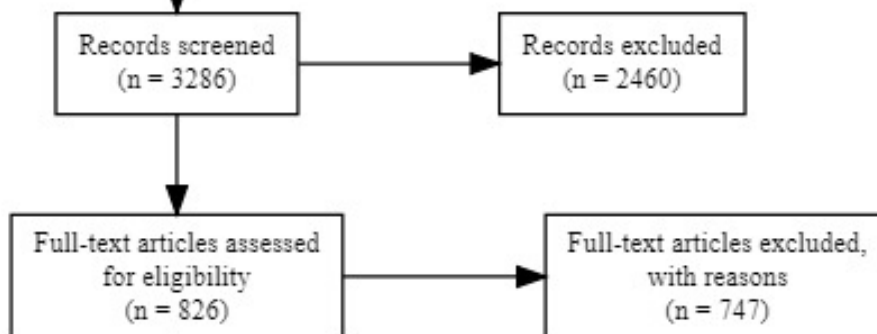
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Meta-Analysis Preparation Process

- **Step 1**: Conduct a systematic literature search using our targeted search terms

- **Step 2**: Identify studies that meet our inclusion criteria
  - Empirical study of an English learner program's effectiveness
  - Sample includes English learner students in grades PK-12
  - The study is a randomized control trial
  - The study includes student academic learning outcomes, including English literacy, mathematics, science, and social studies
  - Written in English and information available to calculate effect sizes

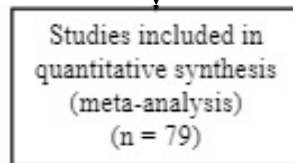- **Step 3**: Extract information and calculate effect sizes

Search

| Records identified through database searching (n = 5114) | Additional records identified through other sources (n = 300) |

Records after duplicates removed (n = 3286)

Screen

Records screened (n = 3286) → Records excluded (n = 2460)

Full-text articles assessed for eligibility (n = 826) → Full-text articles excluded, with reasons (n = 747)

Code

Studies included in quantitative synthesis (meta-analysis) (n = 79)

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Coding Information From the Included Studies

- Basic study information

- Research methods characteristics

- Student and school characteristics

- Program characteristics

- Outcome characteristics

- Setting characteristics

- Effect size

Cronbach (1982)

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Analysis

- We used the collected information to analyze the relationships between coded features and the impacts the studies found on student learning.

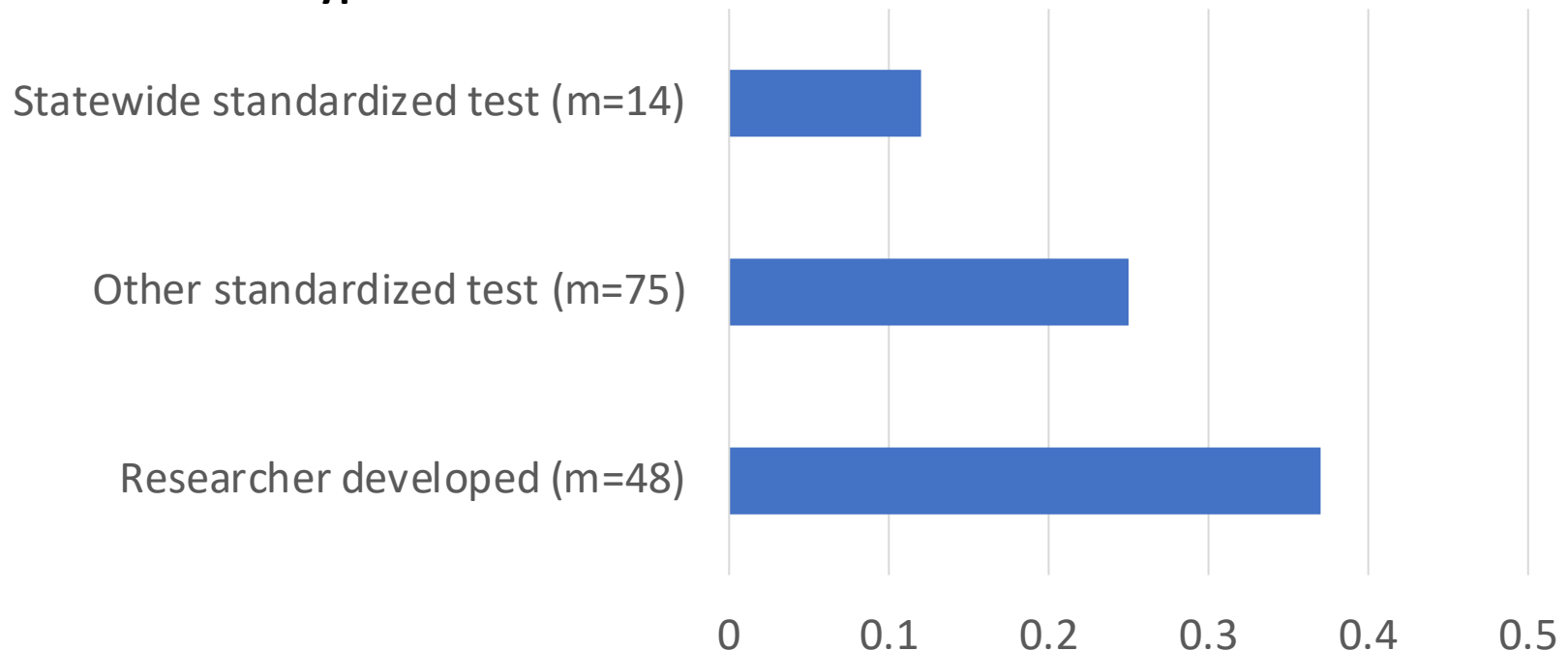 – What features are most related to improvements in student outcomes?

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Initial Findings

Impacts were often smaller when studies examined statewide accountability tests.

Outcome Test Type

Bar chart showing Weighted Average Effect Size, in Standard Deviations:
- Statewide standardized test (m=14): approximately 0.12
- Other standardized test (m=75): approximately 0.25
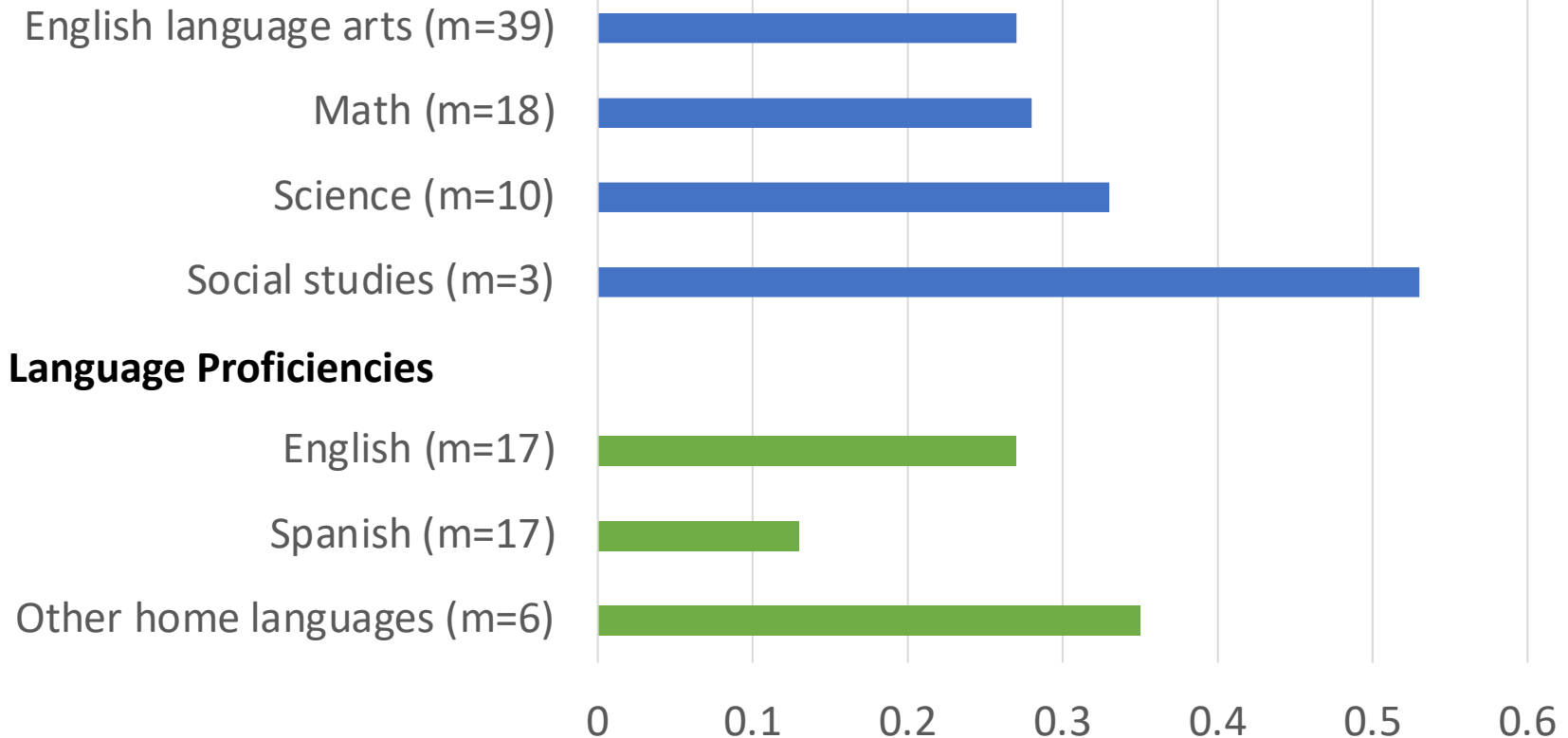- Researcher developed (m=48): approximately 0.37

Weighted Average Effect Size, in Standard Deviations

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Programs tended to raise student learning across all content and language areas.
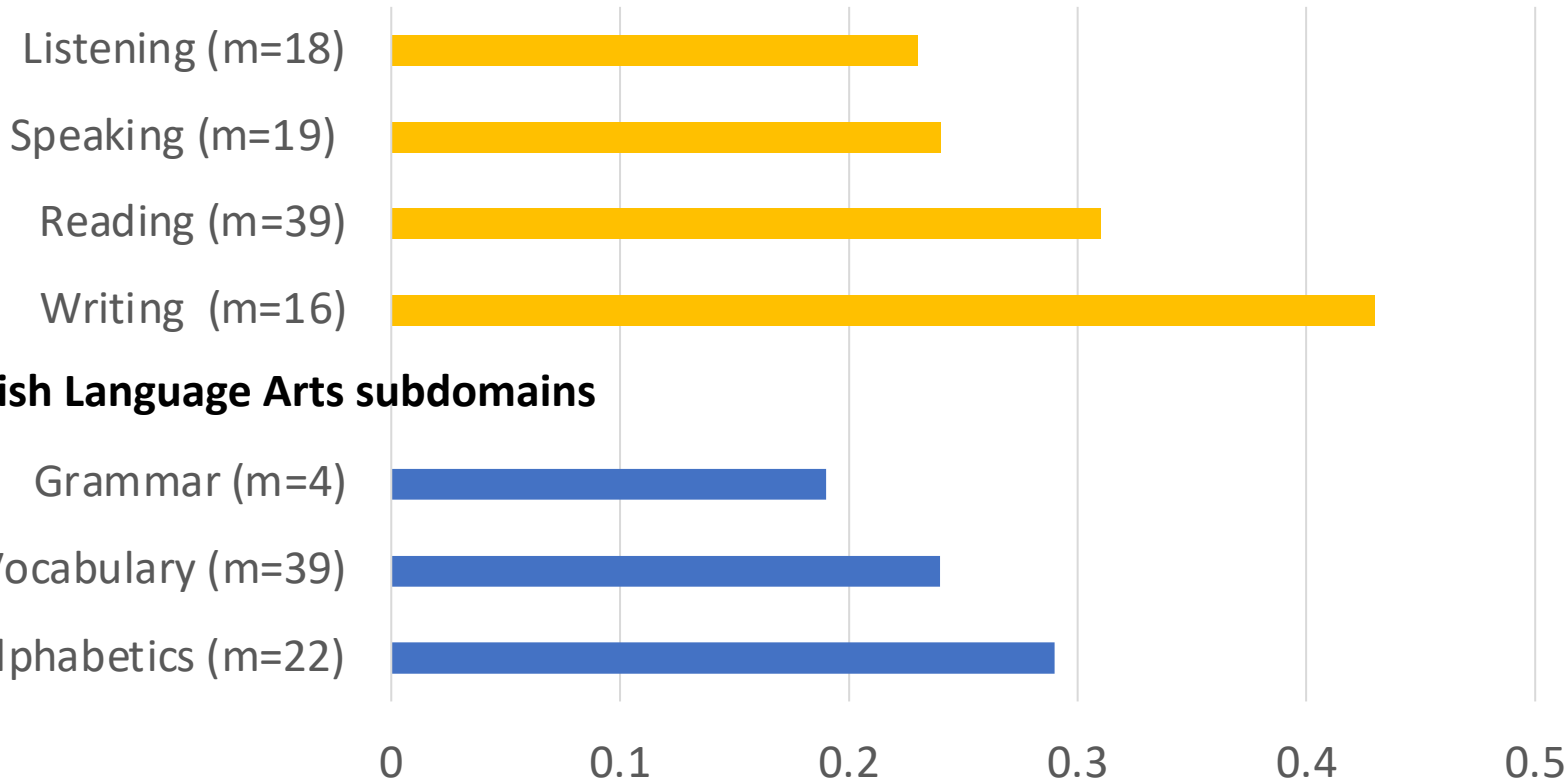
Core Content Areas

Weighted Average Effect Size, in Standard Deviations

Impacts were, on average, largest for student writing skills.

English language development domains

Weighted Average Effect Size, in Standard Deviations

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Programs involving first language development had especially strong improvements in EL student learning.

Approaches to language development

Weighted Average Effect Size, in Standard Deviations

- First language development (m=18)
- Reading fluency (m=12)
- Vocabulary instruction (m=49)
- Phonics (m=22)

Language supports

- Translation (m=8)
- Writing scaffolds (m=18)
- Glossary and word use (m=13)

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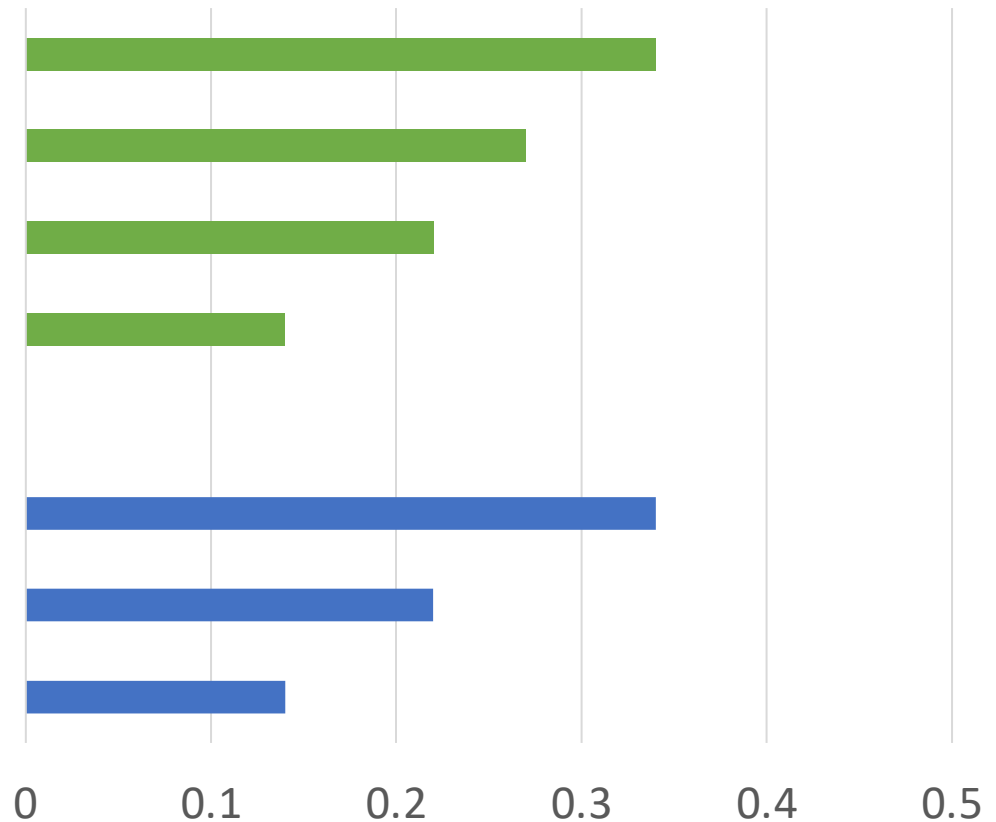
Programs that differentiated content for students had particularly large impacts for students.

Content accessibility supports

Content differentiation (m=7)
Audio support (m=12)
Visual support (m=54)
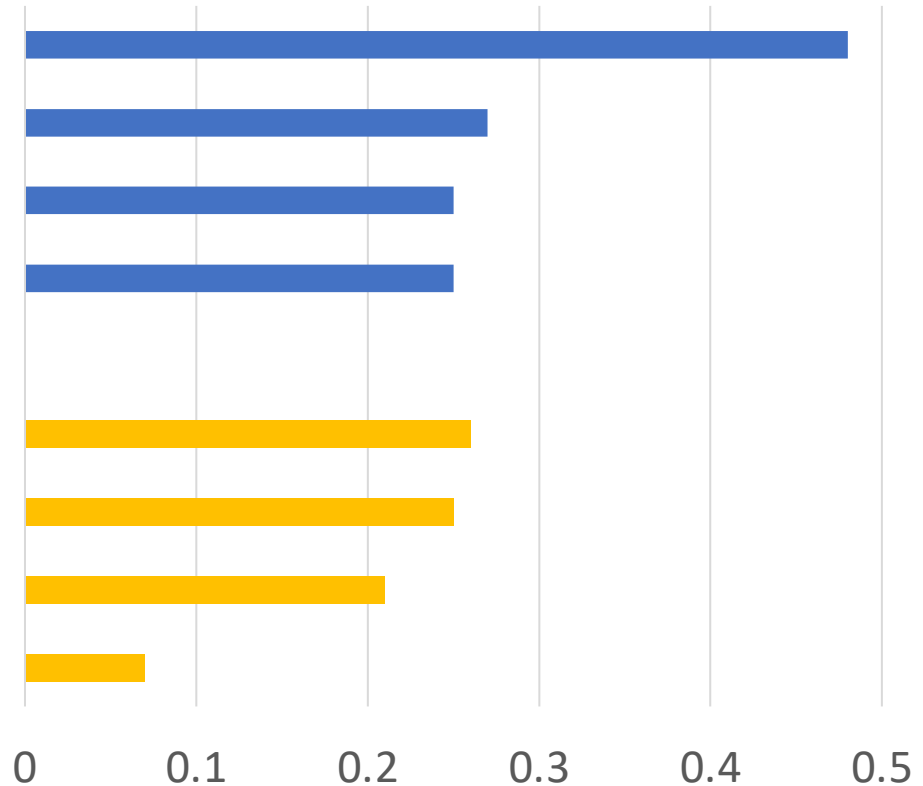Teacher modeling (m=25)

Curriculum supports

In-class practice (m=50)
Formative assessment (m=19)
Peer work or support (m=28)
Culturally responsive materials (m=6)

0   0.1   0.2   0.3   0.4   0.5

Weighted Average Effect Size, in Standard Deviations

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Takeaways for Practice

What does this mean for practice?

- Programs that included first language development tended to have larger improvements in student learning.

- Some particularly promising practices for educators serving English learner students include use of content differentiation, a focus on writing, and use of translation for students.

- When considering program impacts for English learner students, it is reasonable to expect smaller impacts for state standardized tests and larger impacts for other types of tests

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Thank you!

Questions? Comments? Thoughts?

We'd love to hear from you!

Please reach out to:

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