

# Source Use in Multiple Document Comprehension Contexts

Lauren E. Flynn<sup>1</sup>, Laura K. Allen<sup>1</sup>, Kathryn S. McCarthy<sup>2</sup>, Joseph P. Magliano<sup>2</sup>, Danielle S. McNamara<sup>3</sup>



University of Minnesota<sup>1</sup>  
Georgia State University<sup>2</sup>  
Arizona State University<sup>3</sup>



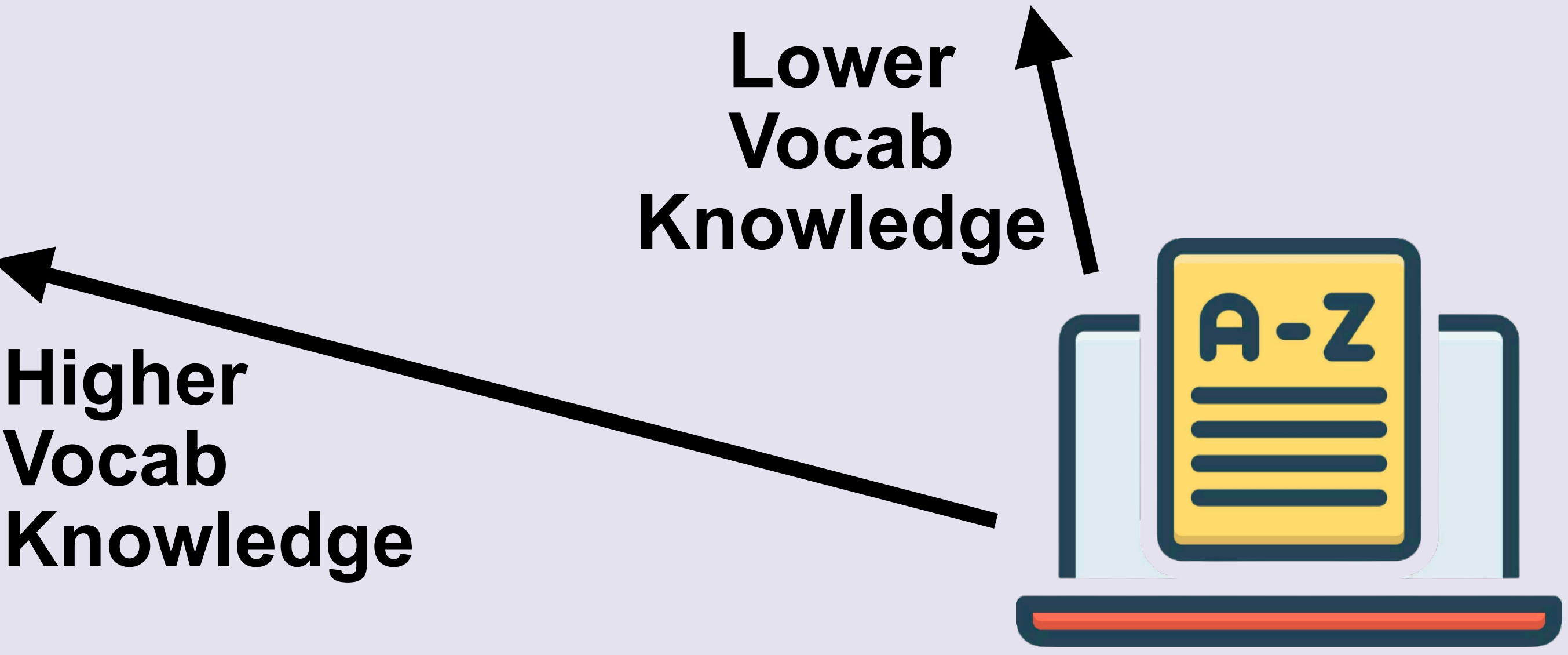
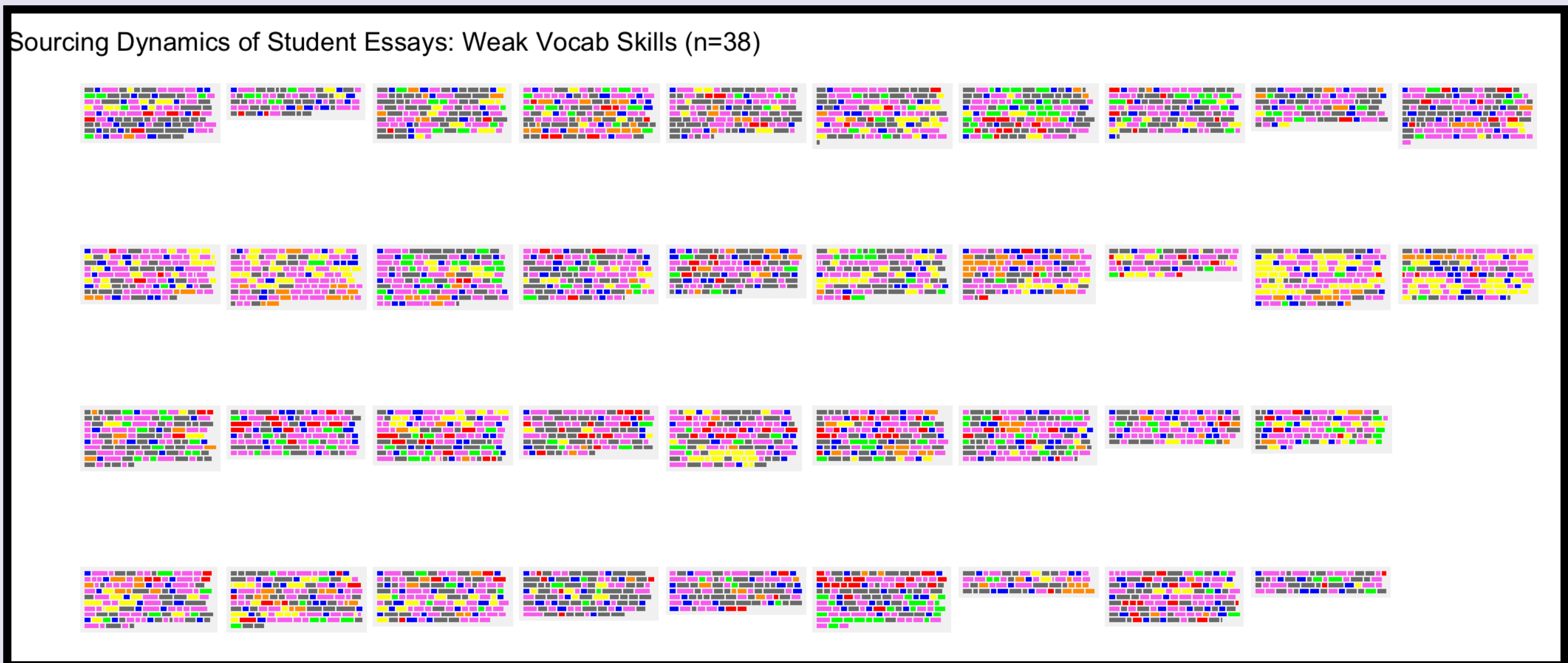
## Background

- Source-based writing or integration tasks rely on lower-level and higher-level literacy skills related to both comprehension and writing processes (List & Alexander, 2018; Spivey & King, 1989)
- Context of reading (e.g., when instructions are given) known to influence comprehension and holistic writing scores but not analyzed in relation to source integration scores nor *how* students use these sources (Vandermeulen et al., 2023)

### Research Questions:

- How do features of source integration relate to individual differences (1a = reading skill, 1b = vocab knowledge)?
- Do source overlap (NLP) indices differ by these individual difference measures?
- Can differences in source overlap (NLP) indices be explored qualitatively to assess differences across skill or knowledge levels?

## Qualitative Results

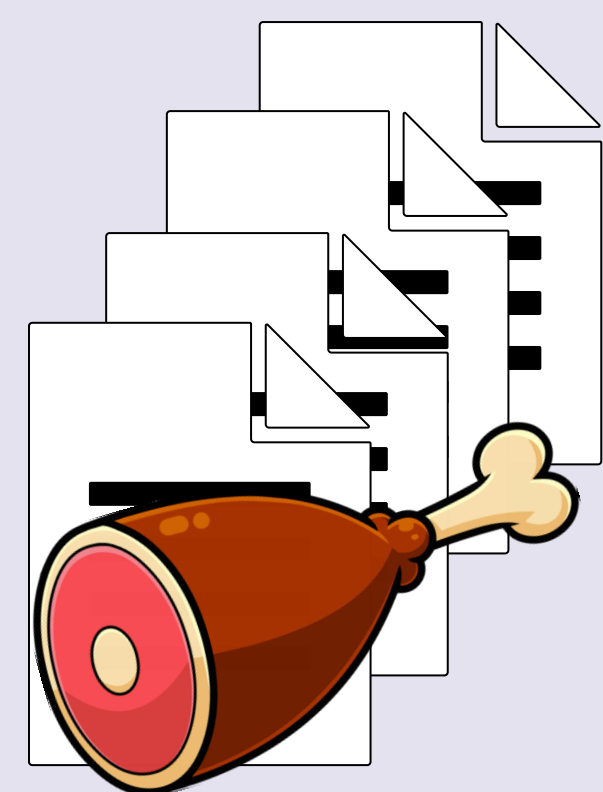


3. Exploratory qualitative analyses show how students of varying degrees of vocab knowledge use different sourcing behaviors

## Methods

Participants (n=94) from a 4-year institution completed a multiple document reading/writing task for course credit

read  
x4  
sources



topic = meat consumption

essay  
writing



- time = 25 minutes
- continued access to sources

individual  
difference  
measures



reading skill vocab skill

- Gates-MacGinite reading test
- vocabulary test

NLP on  
essays



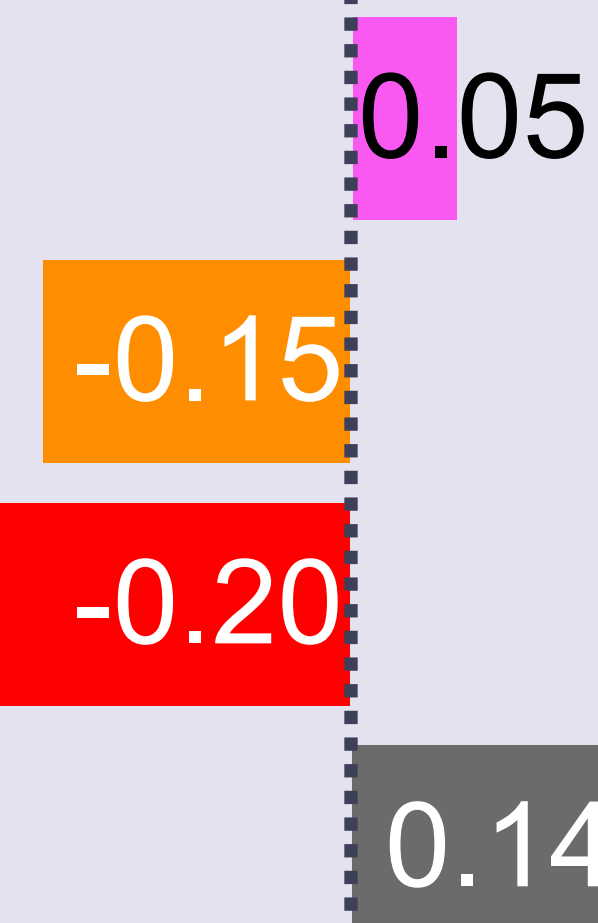
source overlap

- overlap from unique sources
- overlap from some sources
- overlap from all sources
- overlap from no sources (elaborations)

## Quantitative Results

unique sources 2-3 sources all sources elaborations

1a. No significant correlations found between source overlap indices and reading skill



GMRT

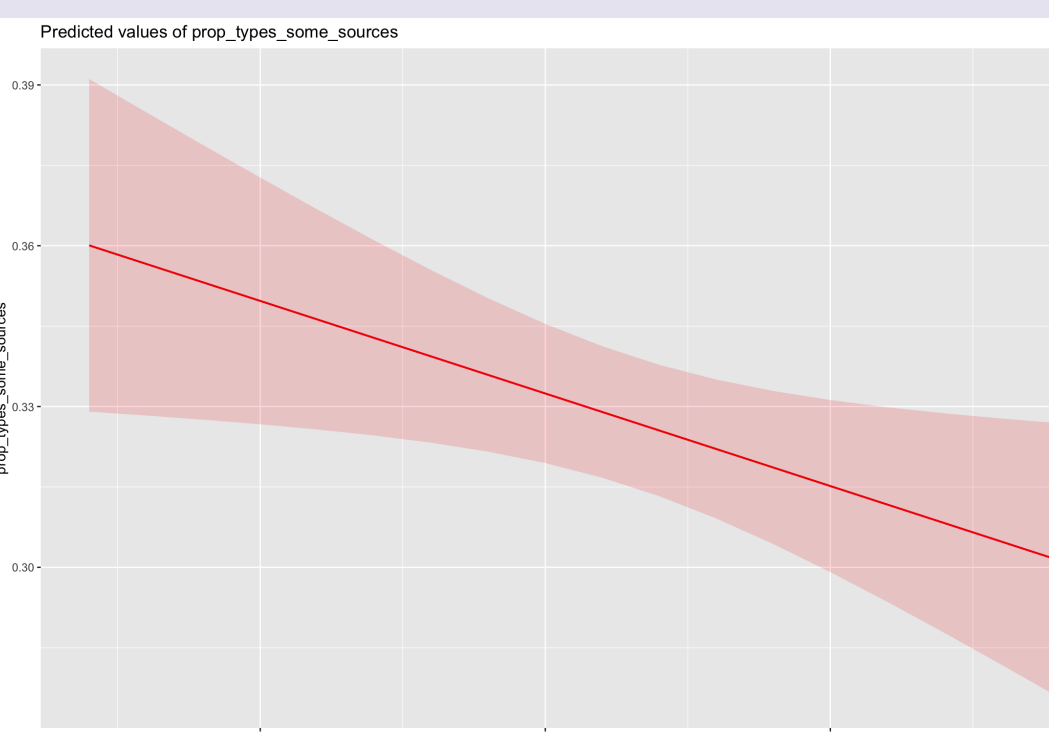


Vocab

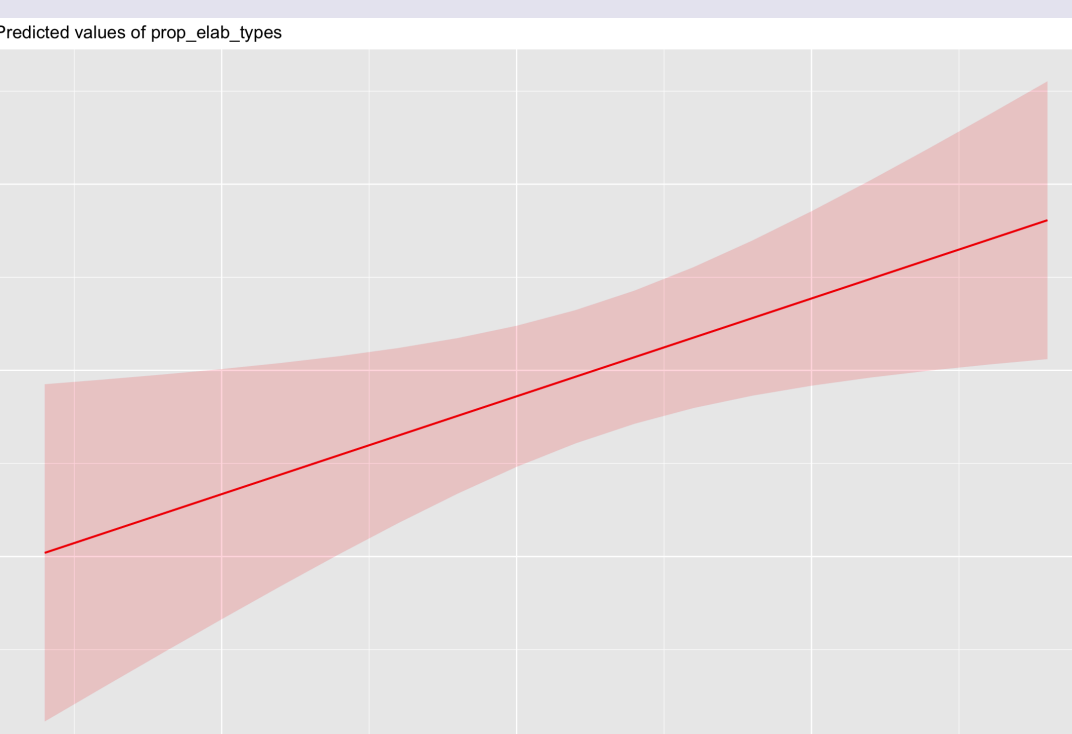


1b. Significant correlation found between vocab knowledge and proportion of elaboration types used

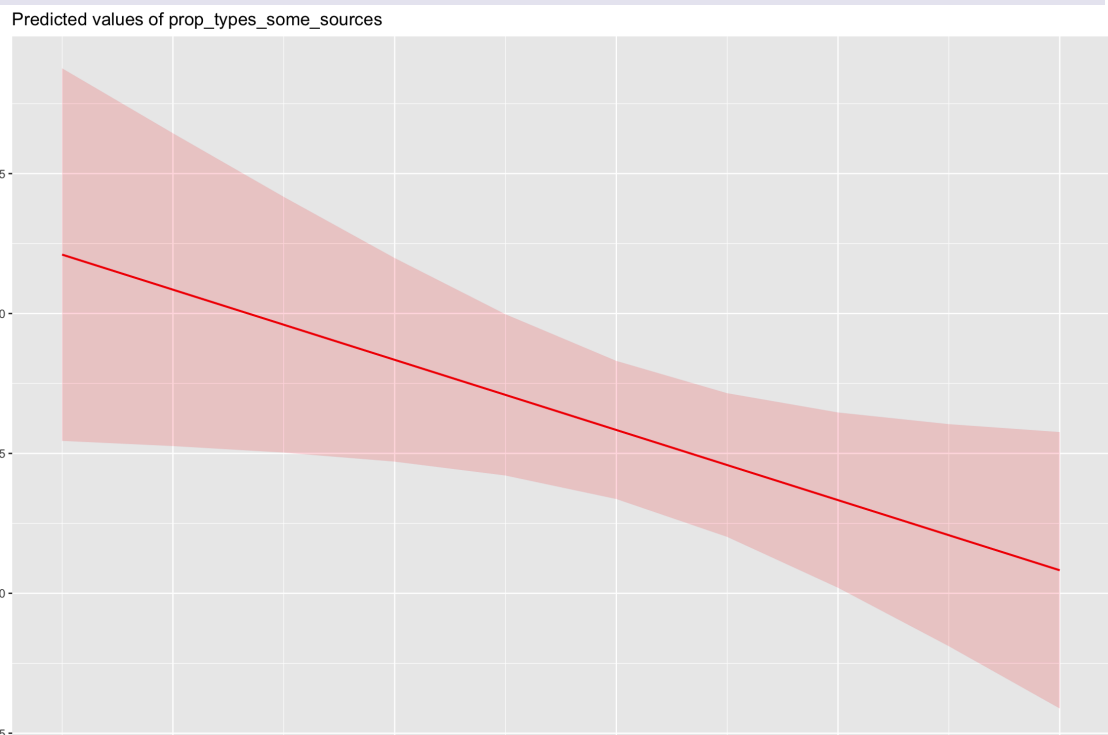
2. Source overlap (NLP) indices differed by IDMs



Lower reading skill associated with more source overlap using types from some sources



Lower vocab scores associated with more source overlap using types from some sources



Higher vocab scores associated with more elaboration (types from no sources)

## Discussion

- Current study examines two critical individual differences that may increase or decrease different source integration behaviors (using word types from unique, some, all, or none of the 4 sources)
- Students with higher reading skill and vocab knowledge may more easily comprehend the texts and may allow them to abstract arguments instead of summarizing or paraphrasing the sources in their writing
- Qualitative visualizations provide opportunity for in-depth look into how one integrates sources into their writing
- Limitation: elaborations not assessed for relevancy (semantic similarity to source words; could be unrelated)
- Qualitative results suggest future work should assess the dynamic/temporal use of source overlap indices
- Implications for providing detailed formative source integration feedback during writing