



# Search Query Sea Change: Is It Time to Transform the Way We Teach Boolean?

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## Problem

Boolean logic is often challenging for first-year, lower-level students to grasp. If Boolean can be left out of first-year instruction, that would free up valuable class time for meatier IL concepts such as question development and source evaluation.

## Question

Is it necessary to teach Boolean to lower-level students, or can they find equally relevant sources with a simple phrase search?

## Methodology

**8 databases:** Academic Search Premier (EBSCO); Google Scholar; JSTOR; LexisNexis Academic; ProQuest Central; PubMed; Scopus; and, Web of Science

**4 searches:** unfiltered Boolean; filtered Boolean; unfiltered natural language; and filtered natural language  
*Filtered = by document type/ scholarly or peer reviewed article*

First 25 results evaluated for relevance using rubric

### Very Relevant (3)

All concepts represented in title or abstract and abstract is relevant.

### Relevant (2)

Majority or all of concepts represented either in title or abstract but when looking at abstract, may be tangential to research question.

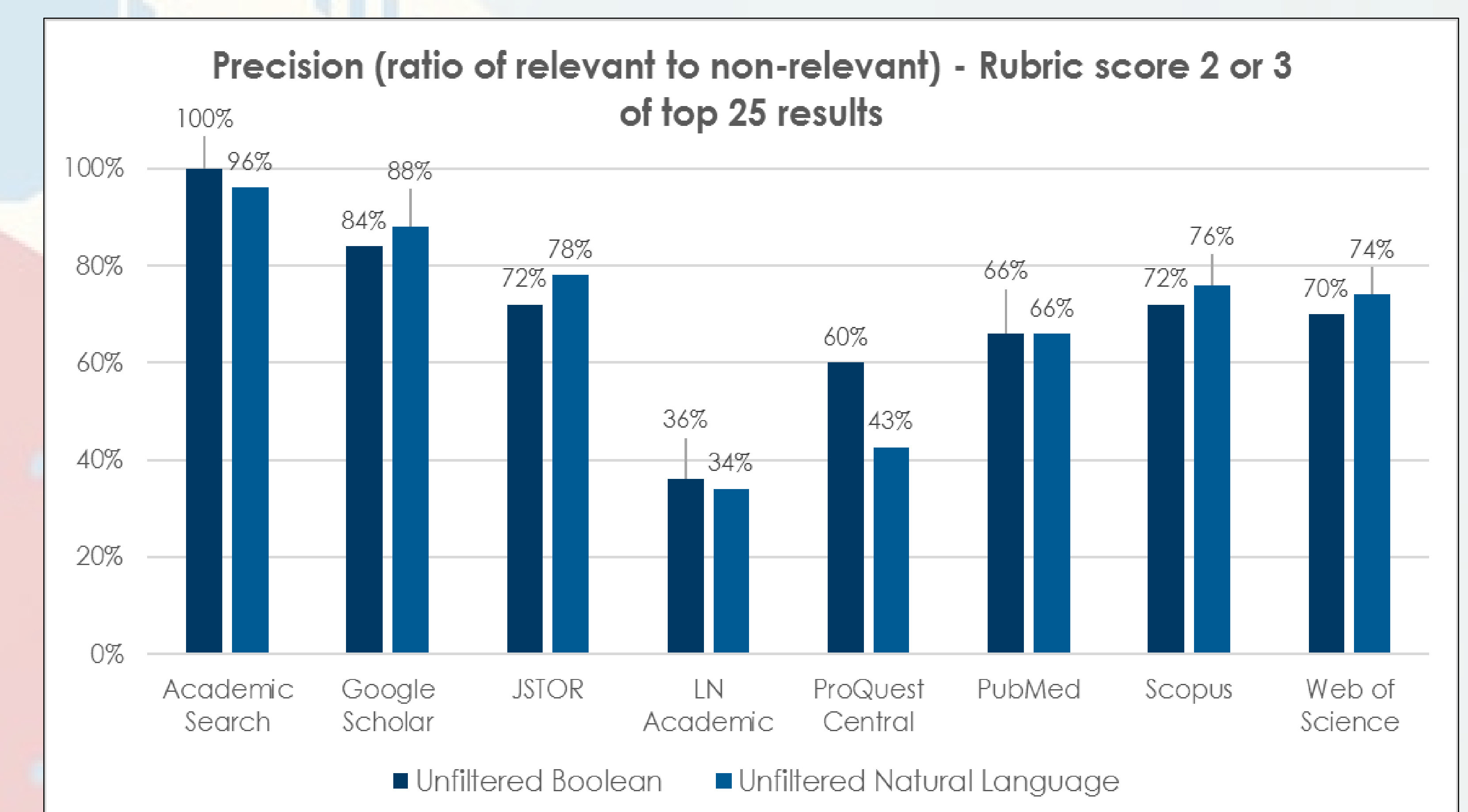
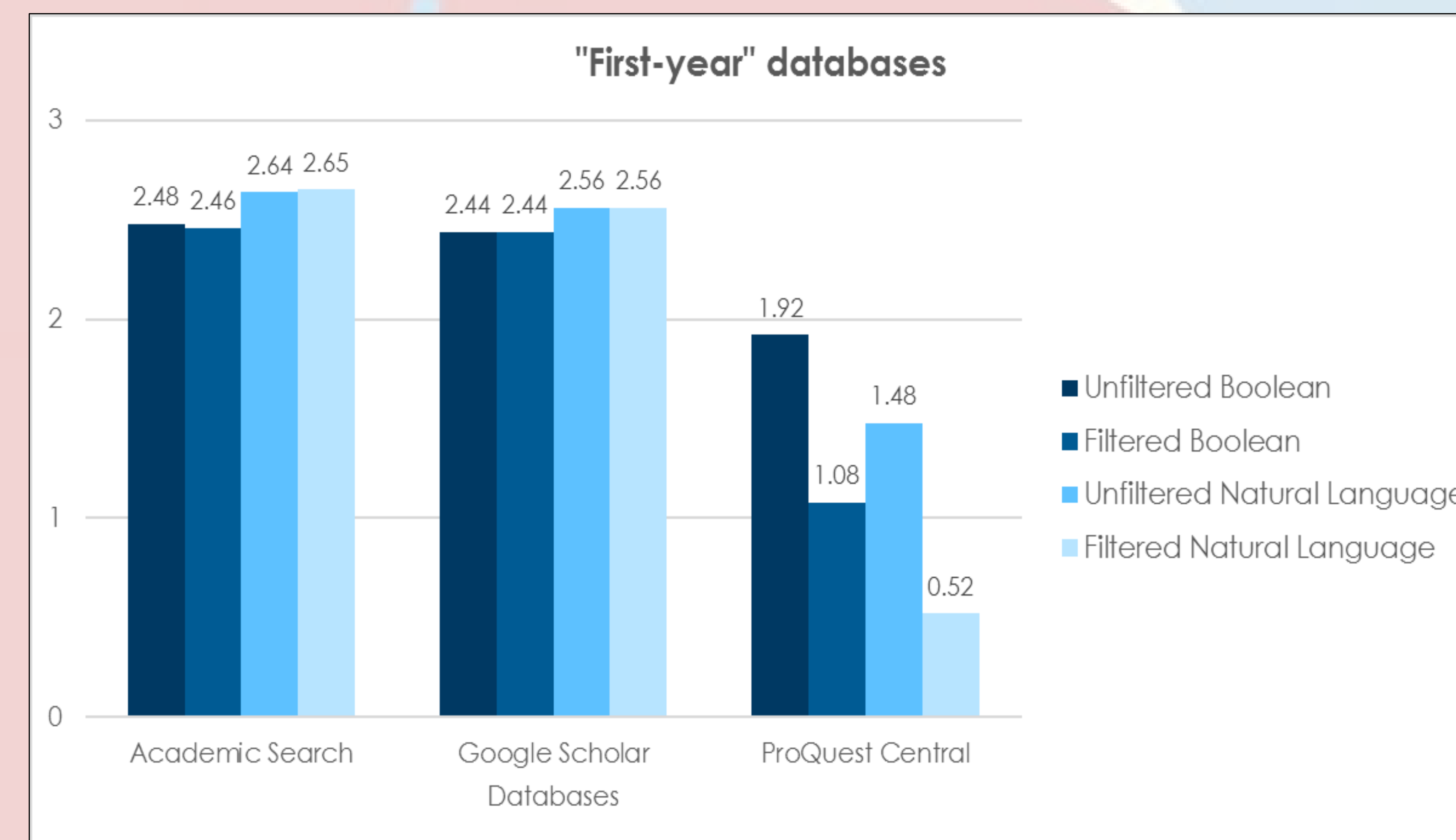
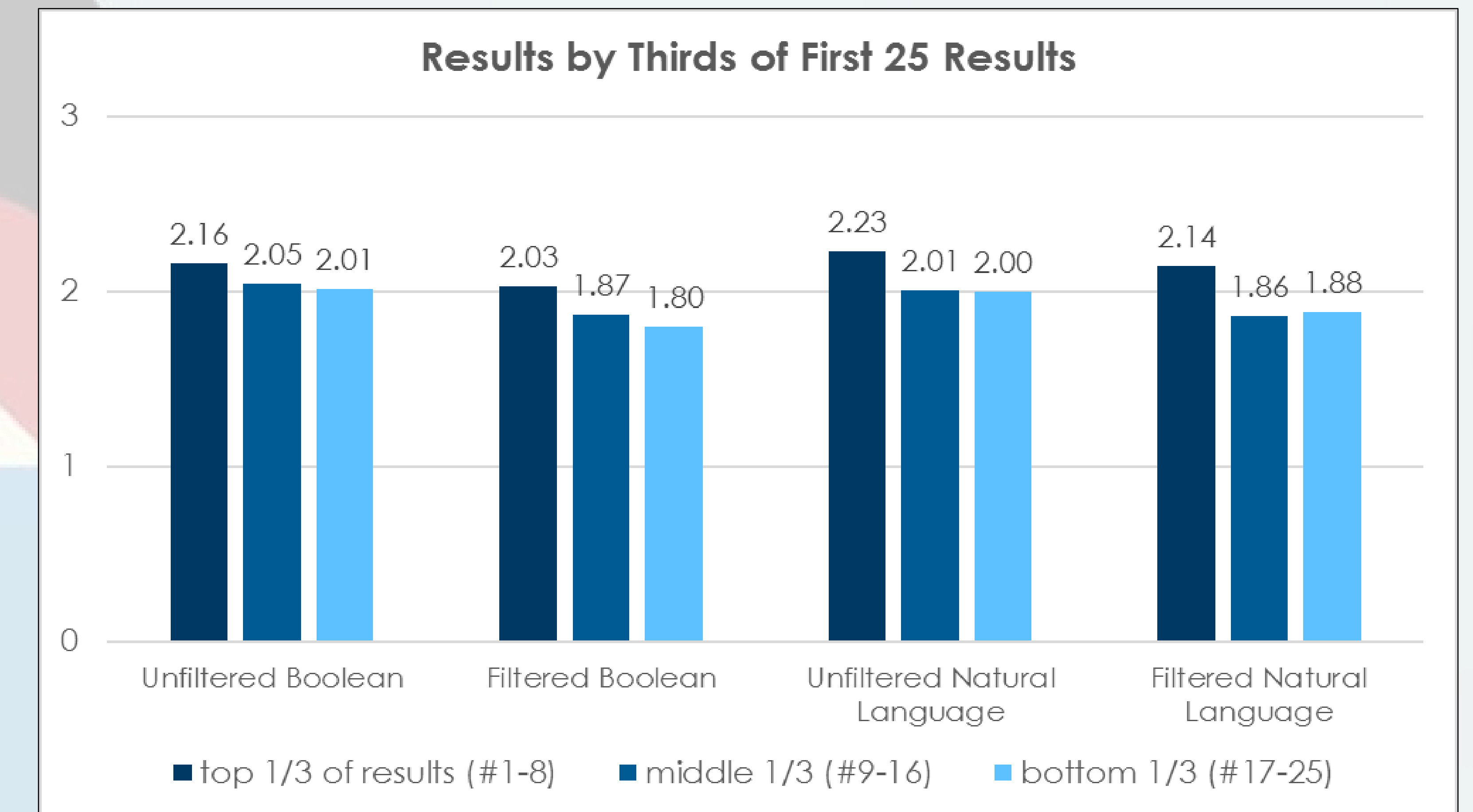
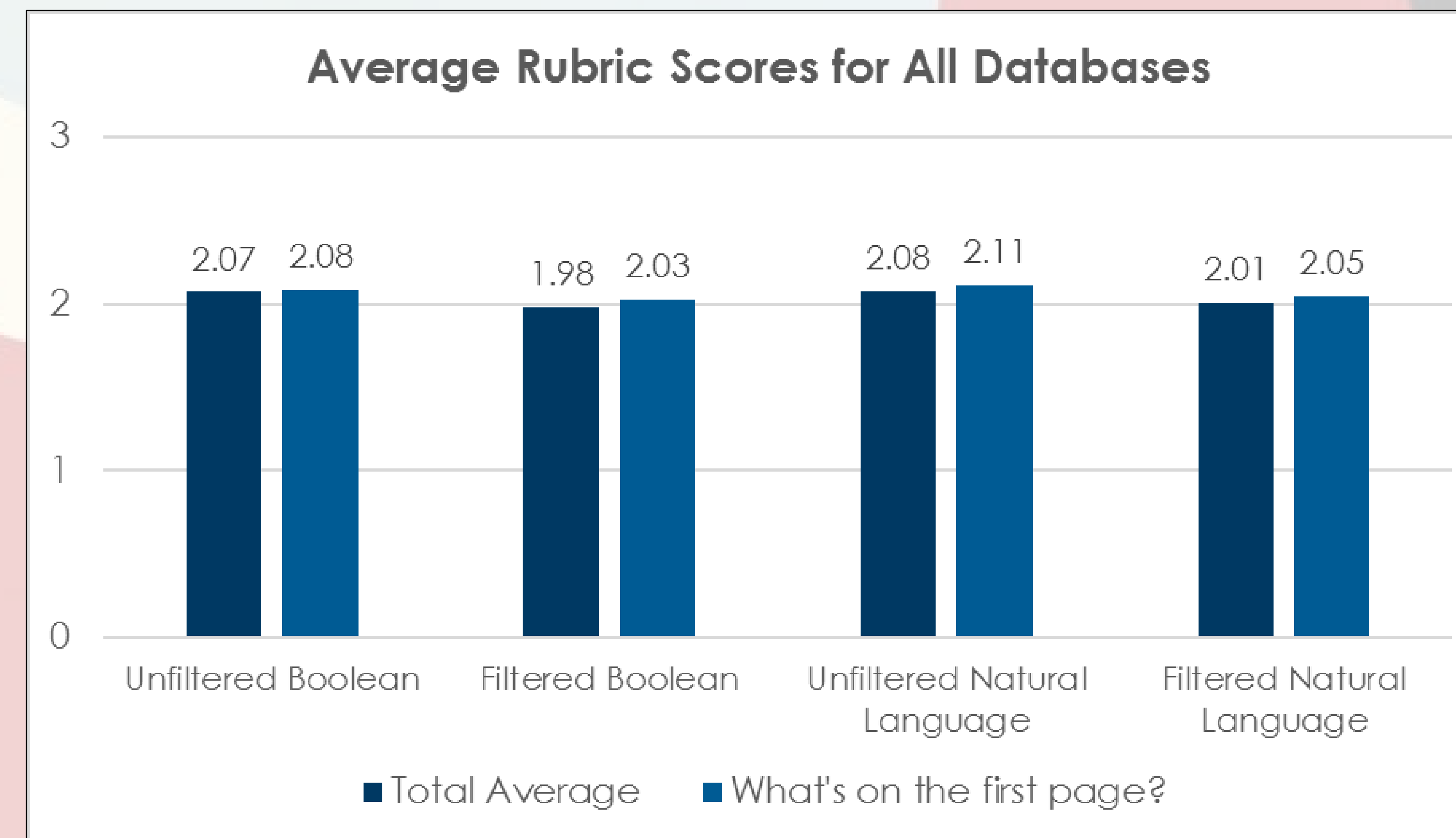
### Not Relevant (1)

Less than half concepts represented OR concepts are there but not relevant to research question.

### Not at all Relevant (0)

0 of total concepts represented OR false hits, terms are there but used in different ways (e.g., social work instead of social rejection).

## Results



## Conclusion

Overall, there is no clear advantage to teaching Boolean search logic to first-year students in terms retrieving relevant results on a topic. For the overwhelming majority of databases included in this study, both Boolean and natural language searching delivered results of highly comparable relevance. **Based on this study, one page of results, and certainly the first 25, may be enough to satisfy the needs of a first-year research assignment.** Boolean may be more important for upper level students and/or students with more complex research needs.

