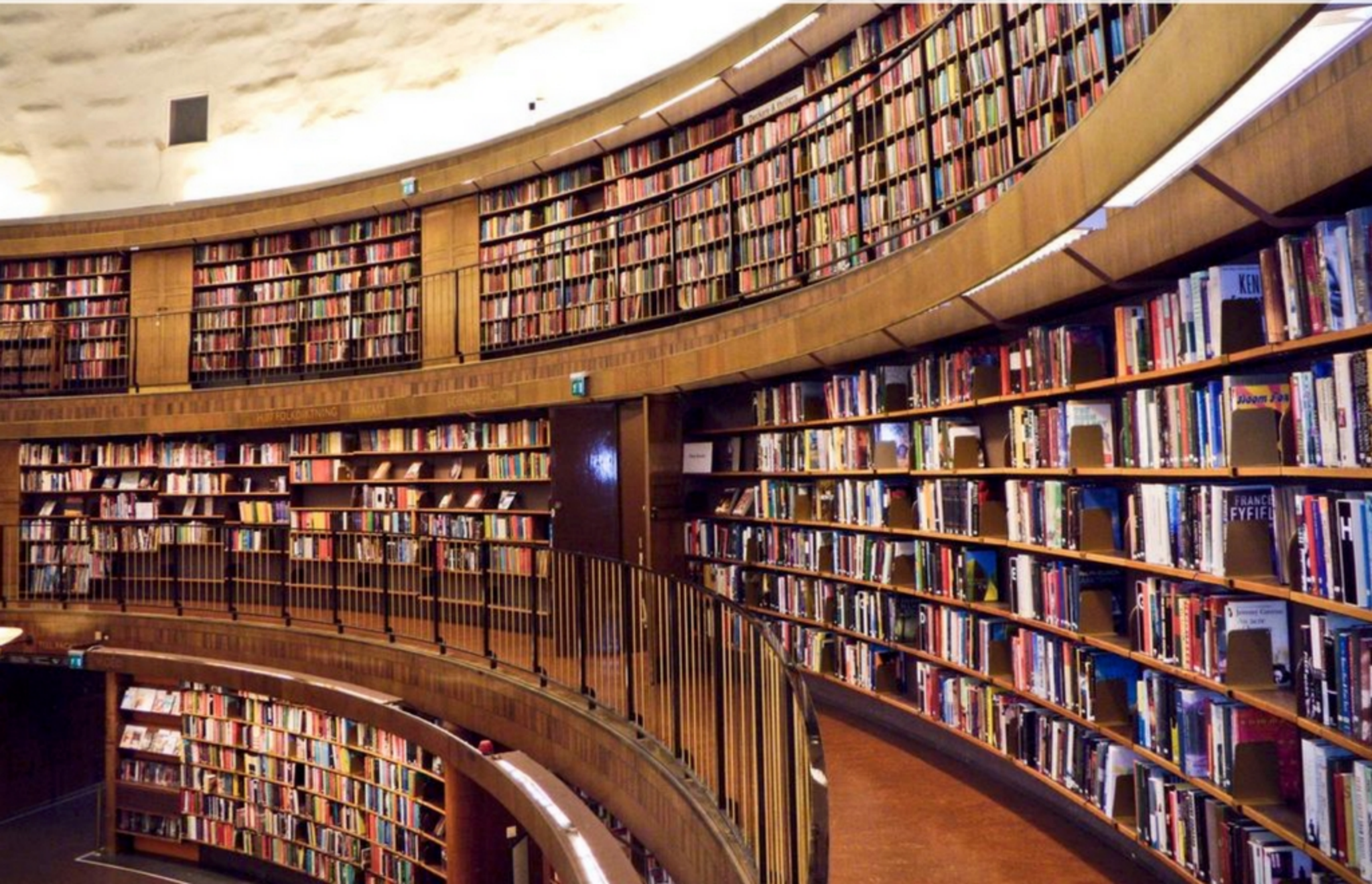
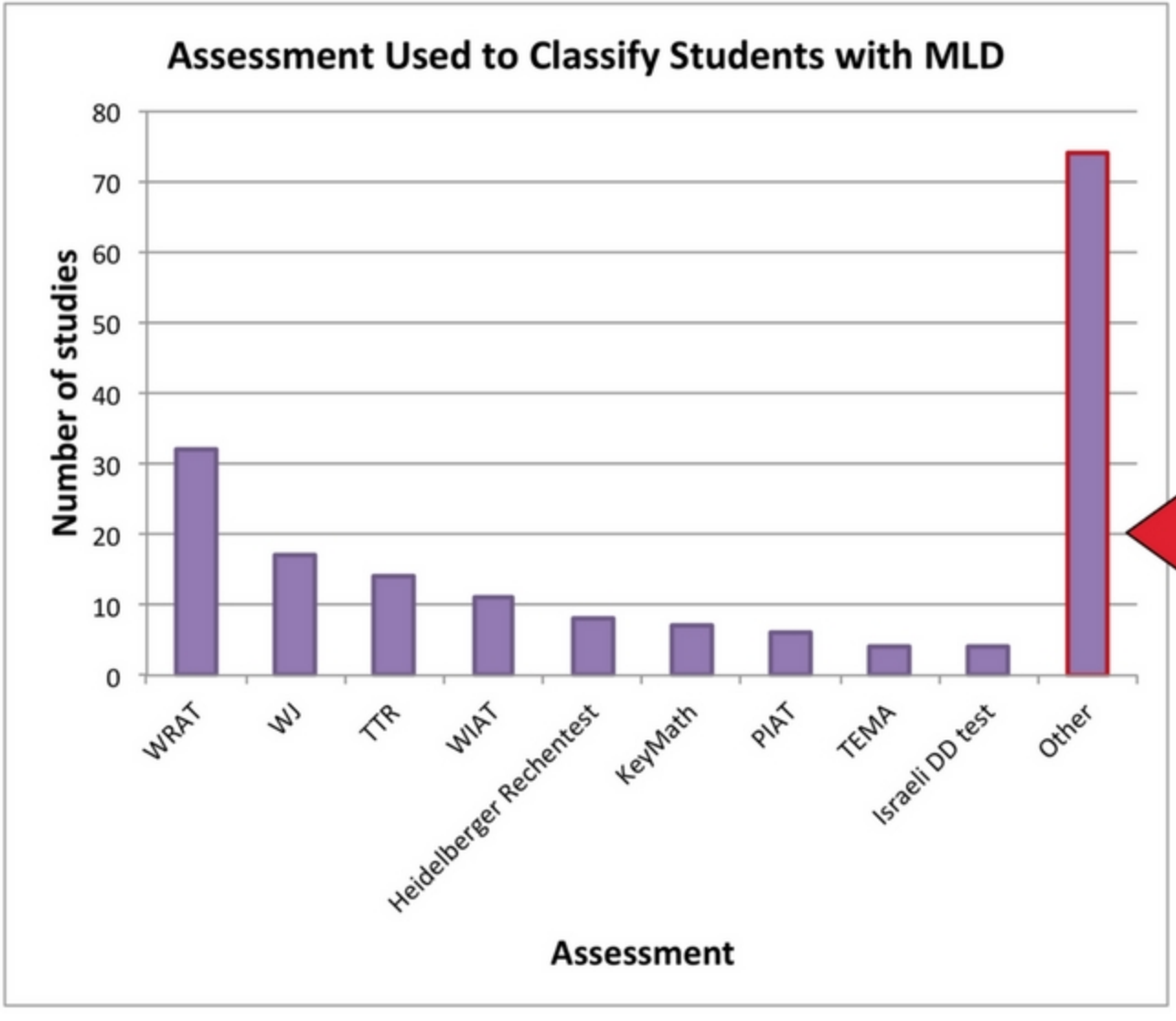
Review of Math Learning Disability Research

Reviewed 164 studies published on math learning disabilities (i.e., dyscalculia) from 1974 to 2013



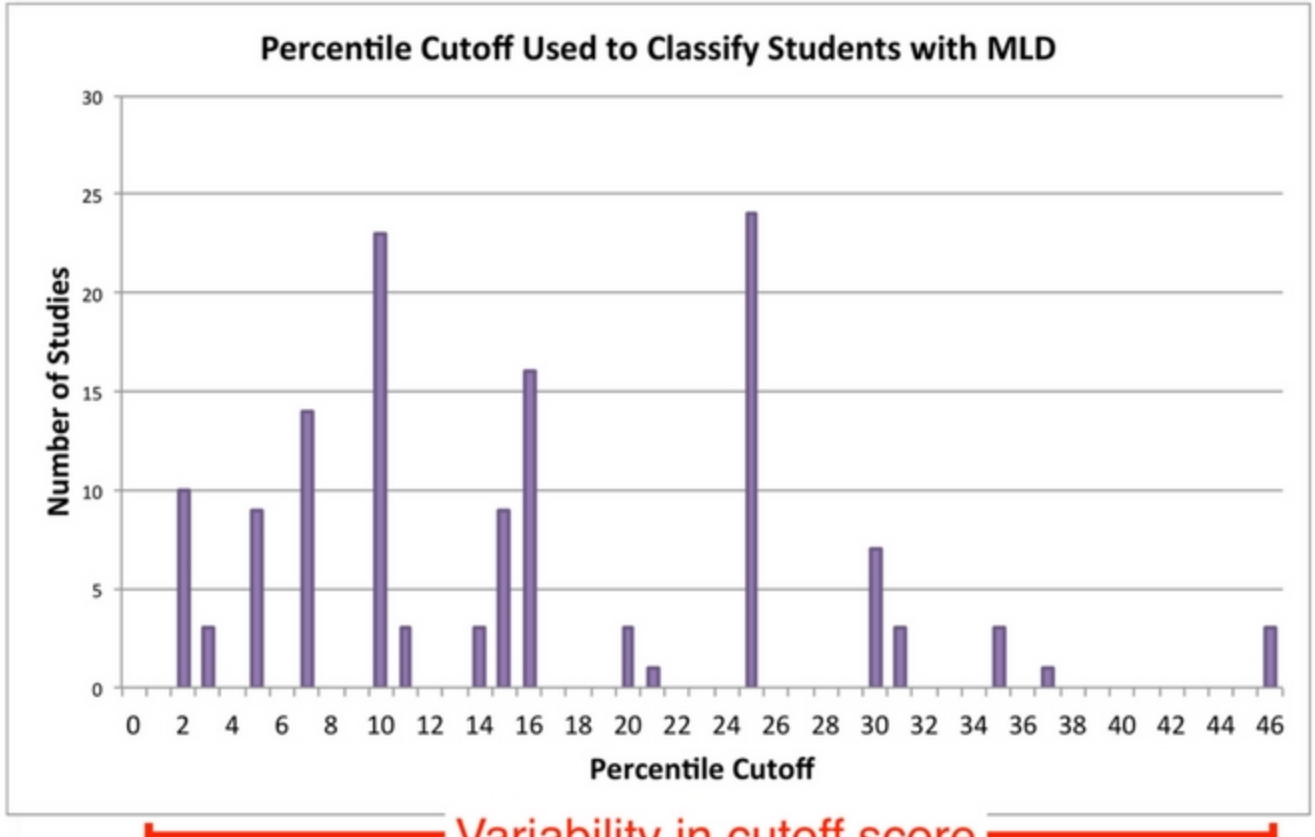
Question 1: How did researchers identify students with a math learning disability (MLD)?

Variability in assessments used to identify MLD



Most used assessment not commonly used in the field

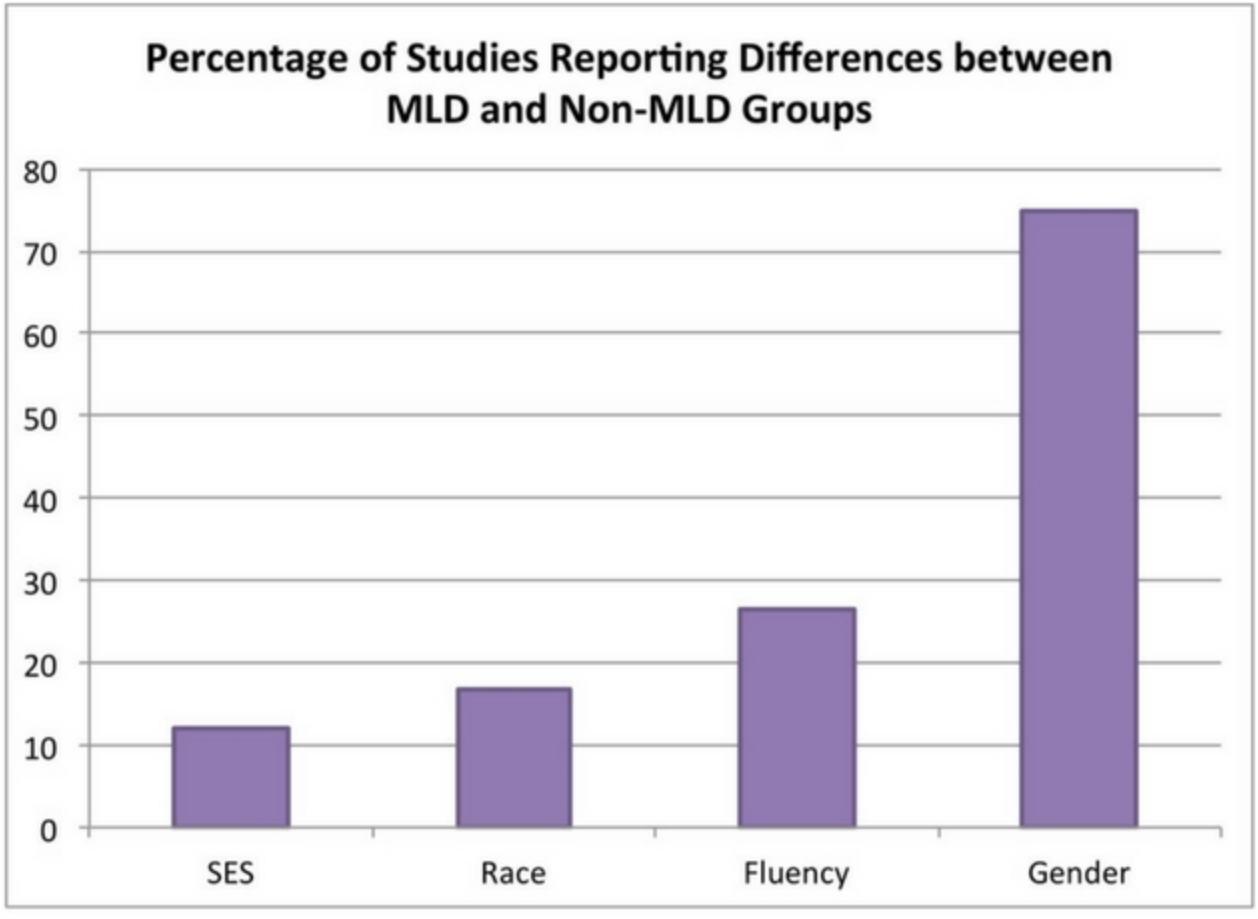
Variability in cutoff score used to define MLD



Variability in cutoff score to define MLD

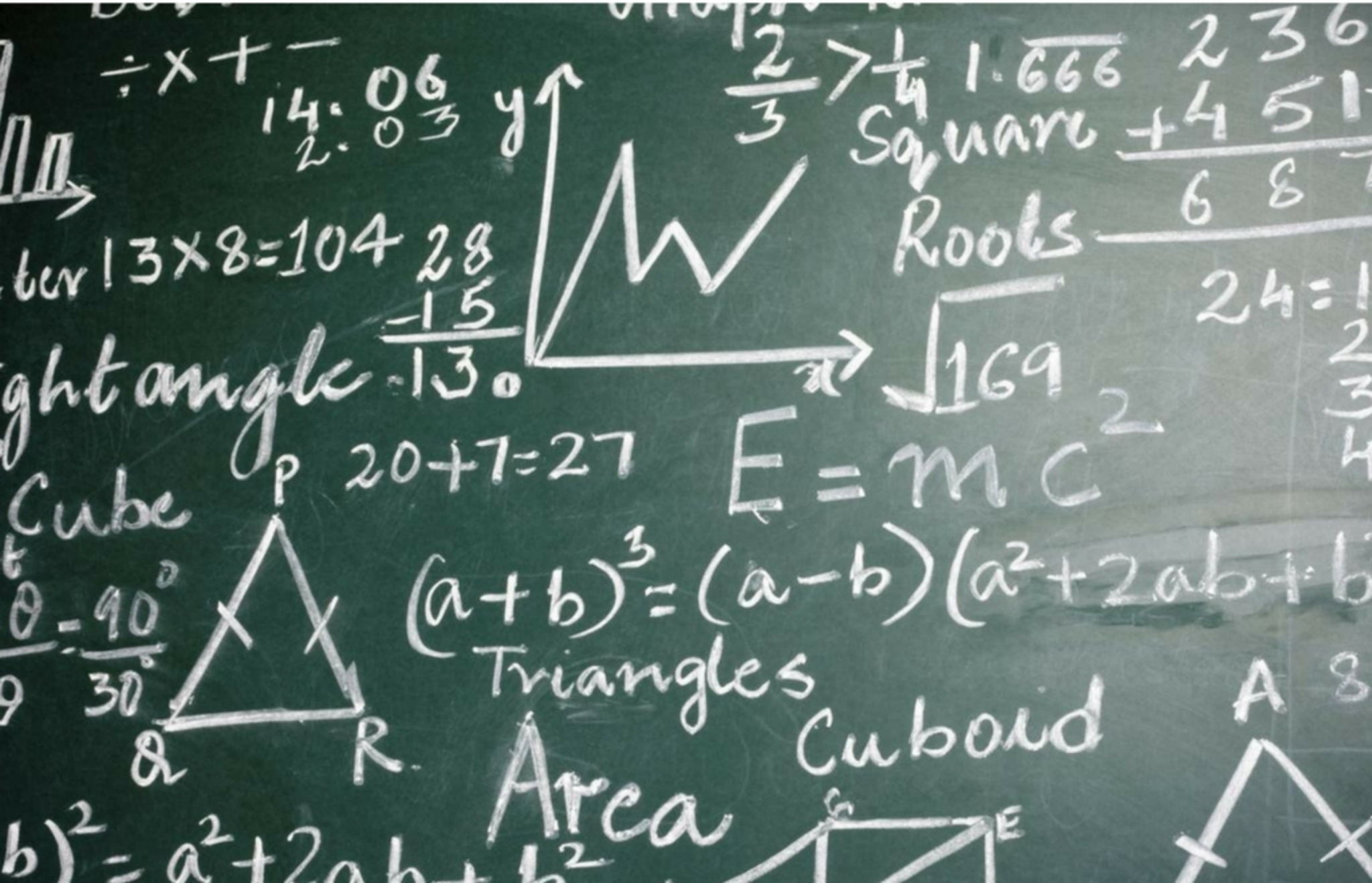
Question 2: Do studies report demographic differences between the MLD and non-MLD groups?

Most studies not reporting differences between groups

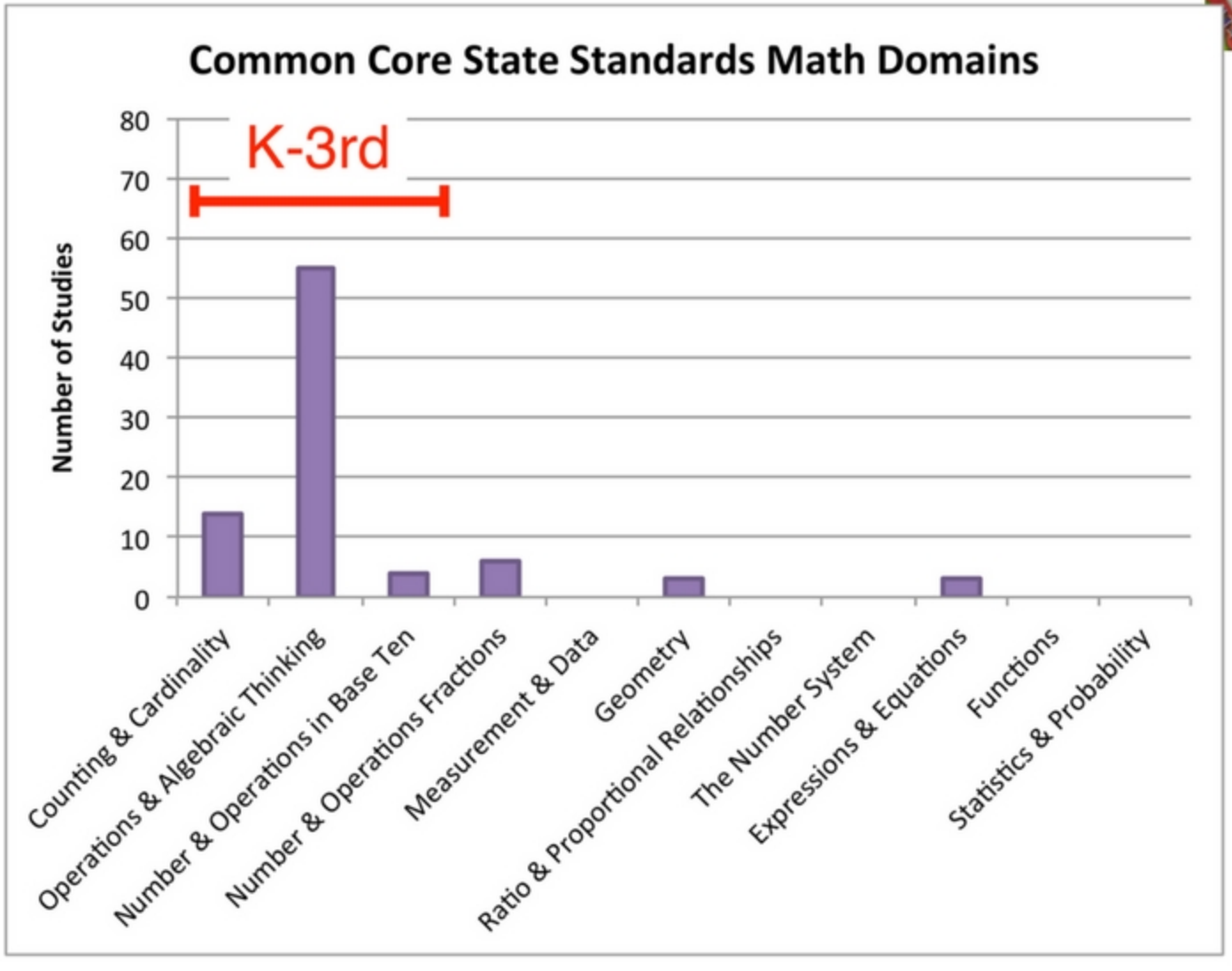


Majority of studies not reporting or controlling for demographic differences between groups

Question 3: What mathematical topics are studied?



Almost exclusive focus on elementary mathematics



Findings

- #1 - Lack of consistency in MLD identification
- criteria across studies

#2 - Lack of control for demographic differences

#3 - Narrow focus on basic arithmetic (K-3rd)

Need for methodological change to:

- #1 - Ensure that students classified as having MLD are comparable
- across studies

#2 - Ensure that MLD are not conflated with low achievement due to environmental/social factors

#3 - Explore MLD in the context of more advanced mathematics (e.g., algebra)