

STEM for Young Children with Disabilities: What Does the Literature Say?

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SUMMARY of FINDINGS

- Gaps exist in early STEM learning research.
- Very little on STEM for infants and toddlers
- Very little on STEM for any aged children with disabilities.
- Science is addressed more often than any other domain area in both research and activities/lesson plans.
- Additional exploration and studies needed for engineering and technology.

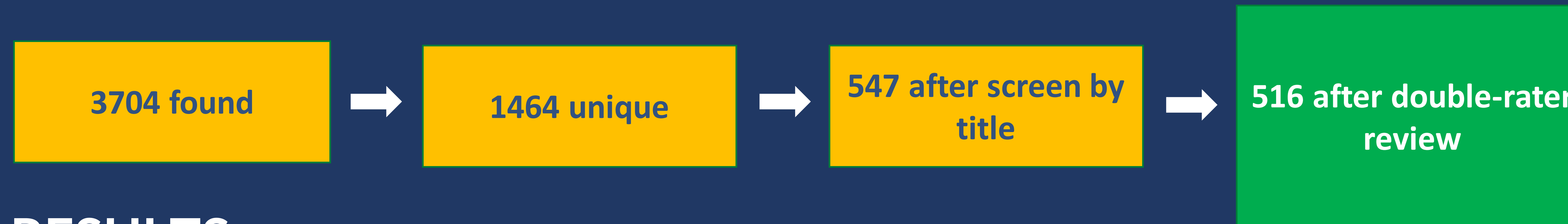
RESEARCH QUESTION

What has been published on STEM learning for young children (birth to five) with and without disabilities?

METHOD: SCOPING REVIEW

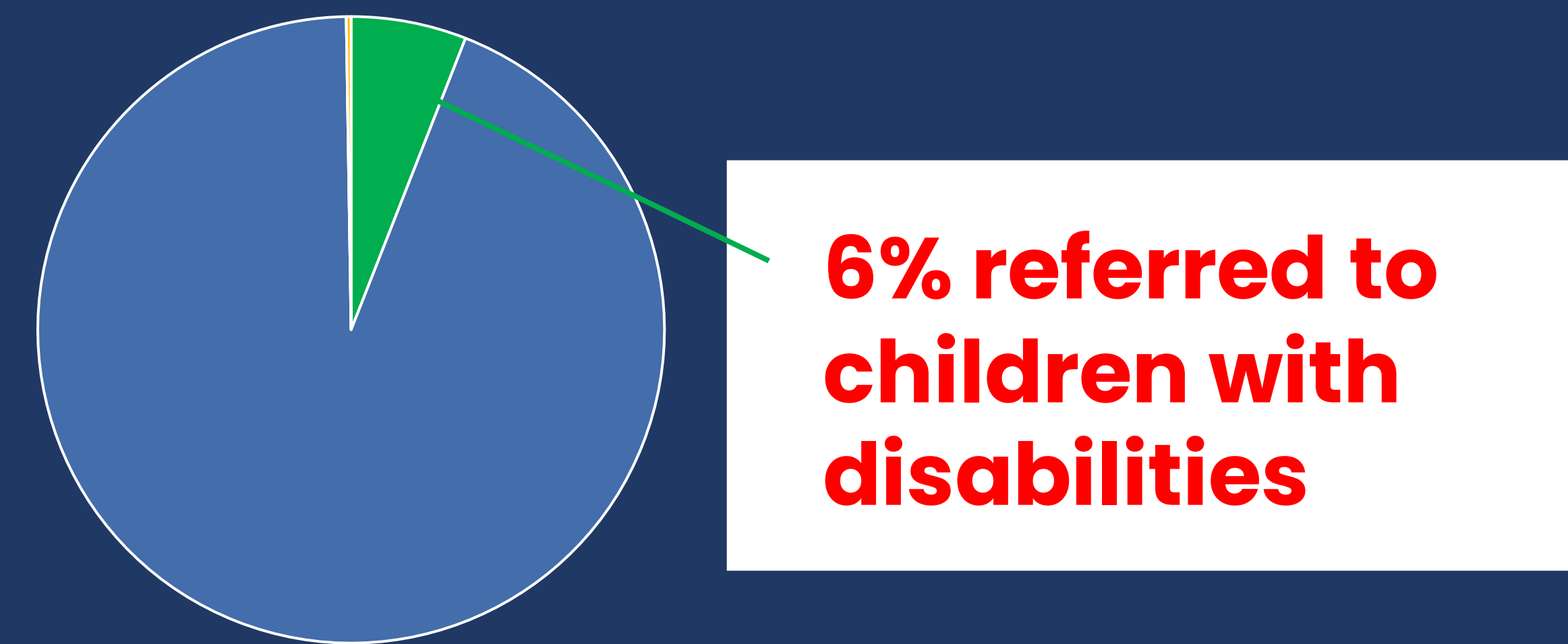
- “What is out there?”
- Initial search conducted January – May 2019. Follow-up conducted December 2020–January 2021
- 102 sources using 20 search terms
- STEM learning in all early care and education settings
- Double-rater independent inclusion review based on child age and topic

REFERENCES PRODUCED

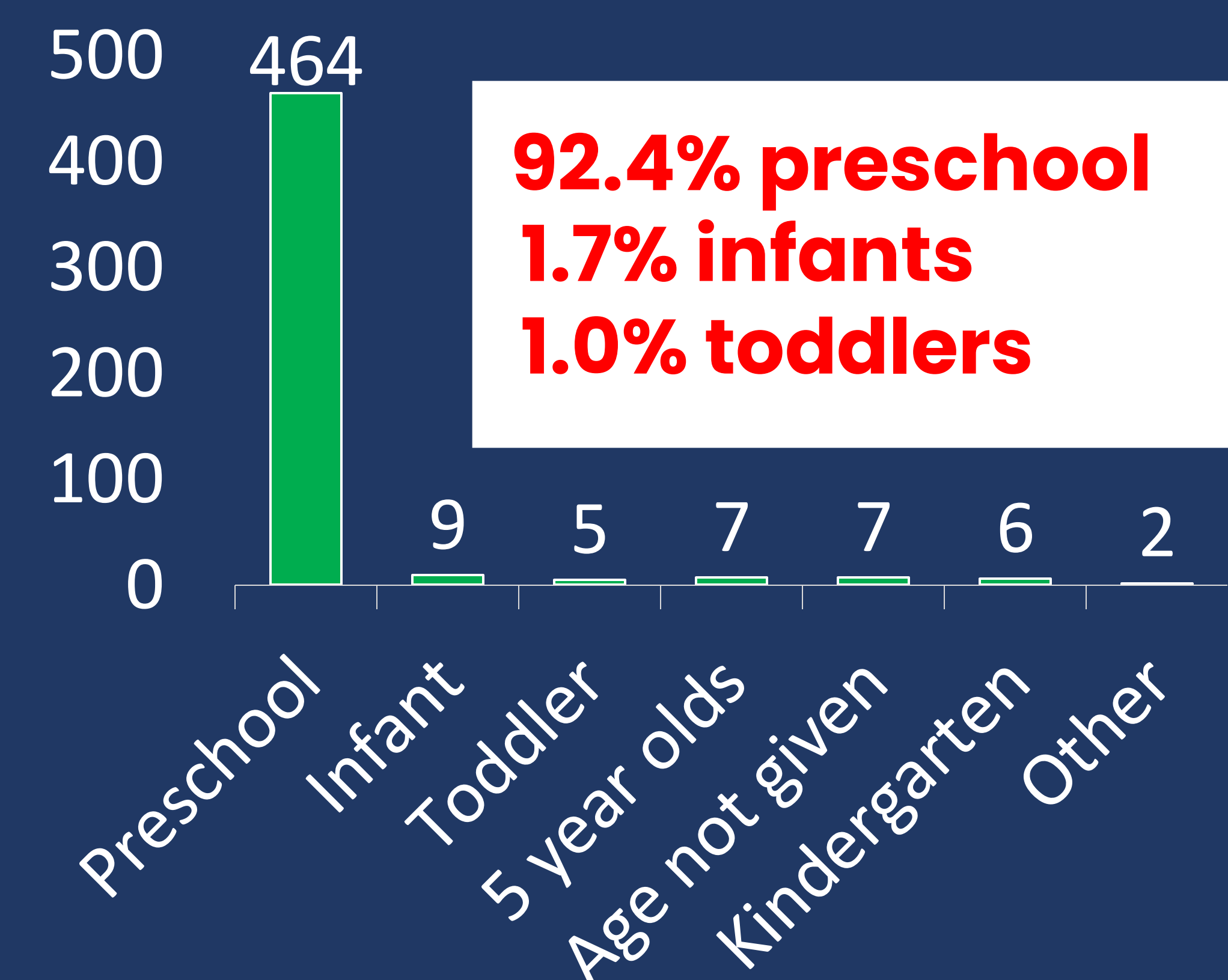


RESULTS

Disability Mention



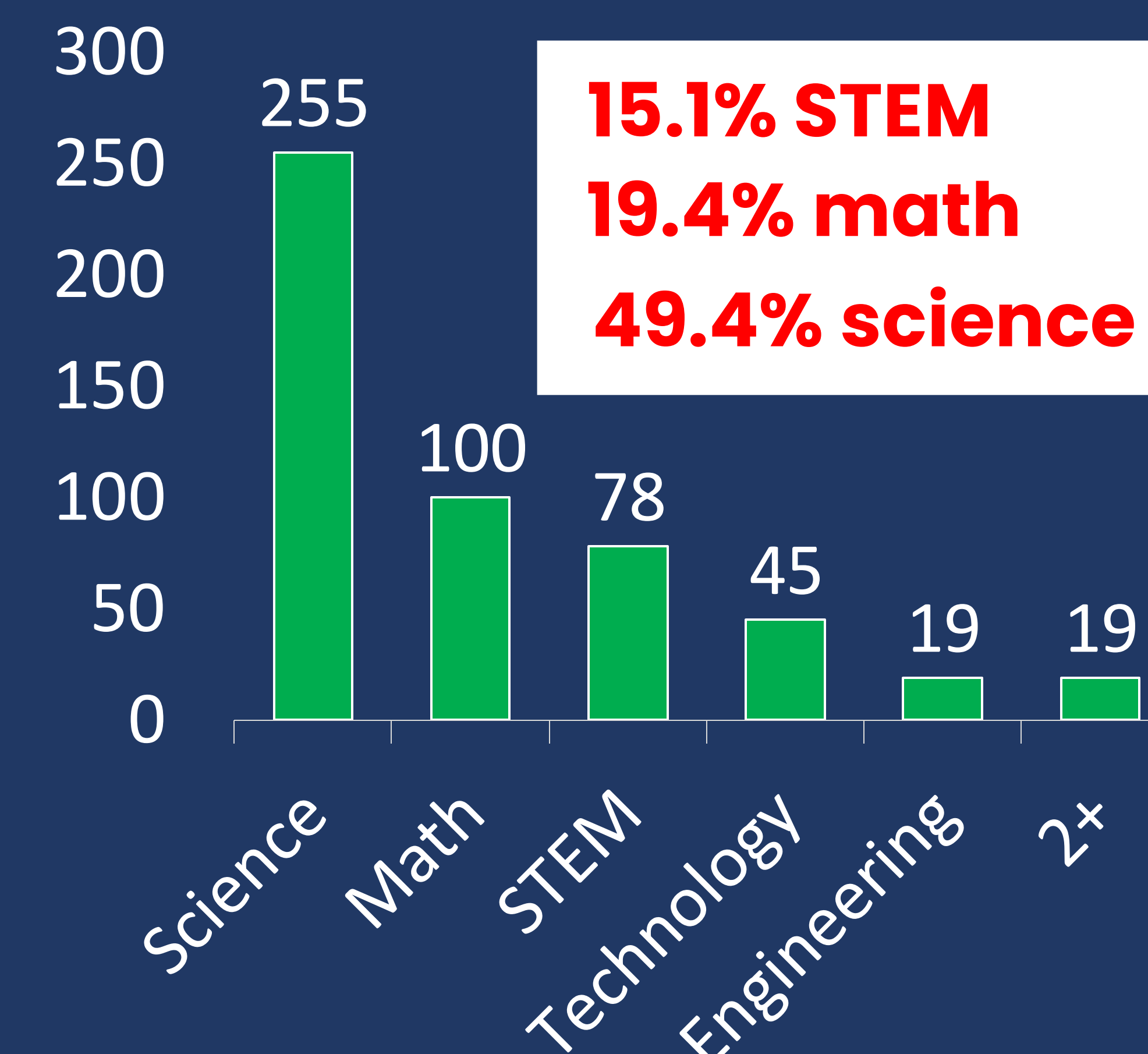
Age of Children – Number of References



Activities and Lesson Plans

- 33% of the unique references described activities or lesson plans.
- Of these, 85.5% were science.
- Only 1.2% of these were special-education specific.

Content Area – Number of References



DISCUSSION QUESTIONS

1. What surprised you about the findings?
2. As a **researcher**, what can you add to the knowledge base?
3. As a **practitioner**, what information do you need to help you engage young children with disabilities in STEM learning?

STEMIE's role in knowledge development includes discovering gaps in Early Learning Guidelines ELGs; building learning trajectories for science, technology, and engineering; and cultivating strategies to support young children with disabilities in STEM.

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