

Development of a Questionnaire to Assess Attention, Language, and Social Behaviors in Young Children



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UNIVERSITY OF MINNESOTA

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Overview

- Clinicians often use multiple questionnaires to assess broad developmental categories, including speech, language, and auditory.
- We evaluated the use of the Children's Questionnaire (CQ), a parent survey, to screen auditory, language, social, and other related skills of 3- to 7-year-old typically developing children.

Background: S.I.F.T.E.R. and CQ

The **S.I.F.T.E.R.**, or Screening Identification For Targeting Educational Risk, is a questionnaire designed for children identified by hearing screening or who have known hearing loss (Anderson 1989).

- It is typically completed by teachers and consists of five categories: Academics, Attention, Communication, Class Participation, and School Behavior.

The **CQ** consisted of questions modeled from the S.I.F.T.E.R.

- The categories assessed included:

- Attention
- Receptive Language
- Expressive Language
- Social Skills
- Other Related Skills

- Each category included four 5-point Likert scale questions.

Differences:

- The CQ completed by parents rather than teachers.
- The CQ more broadly gains information regarding social interactions and home behaviors.

Purpose

This study evaluated a newly developed parent questionnaire that addressed broad developmental categories of children's language.

Specifically, we sought to determine:

- How parents ranked their children's behaviors across domains relative to peers,
- If there are differences among parent ratings of each domain based on child age, and
- The consistency of parent responses within each domain.

Participants

| Characteristic | Age Group | | | | | |
|------------------|------------------|-----------|-----------|-----------|-----------|-----|
| | 3 n=38 | 4 n=32 | 5 n=44 | 6 n=50 | 7 n=53 | |
| Income | <\$50k | 10% | 3% | 7% | 14% | 11% |
| | \$50-\$100k | 37% | 59% | 57% | 42% | 26% |
| | \$100k-\$150k | 21% | 25% | 20% | 30% | 25% |
| | >\$150k | 32% | 6% | 11% | 12% | 36% |
| Race | White | 89% | 88% | 91% | 80% | 81% |
| | African American | 0% | 0% | 2% | 6% | 4% |
| | Asian | 0% | 0% | 2% | 4% | 2% |
| | Multi-racial | 11% | 6% | 5% | 10% | 13% |
| | Other | 0% | 6% | 0% | 0% | 0% |
| Parent Education | High School | 13% | 22% | 2% | 4% | 9% |
| | Post-secondary | 39% | 53% | 50% | 56% | 42% |
| | Graduate | 32% | 25% | 32% | 24% | 34% |

Method

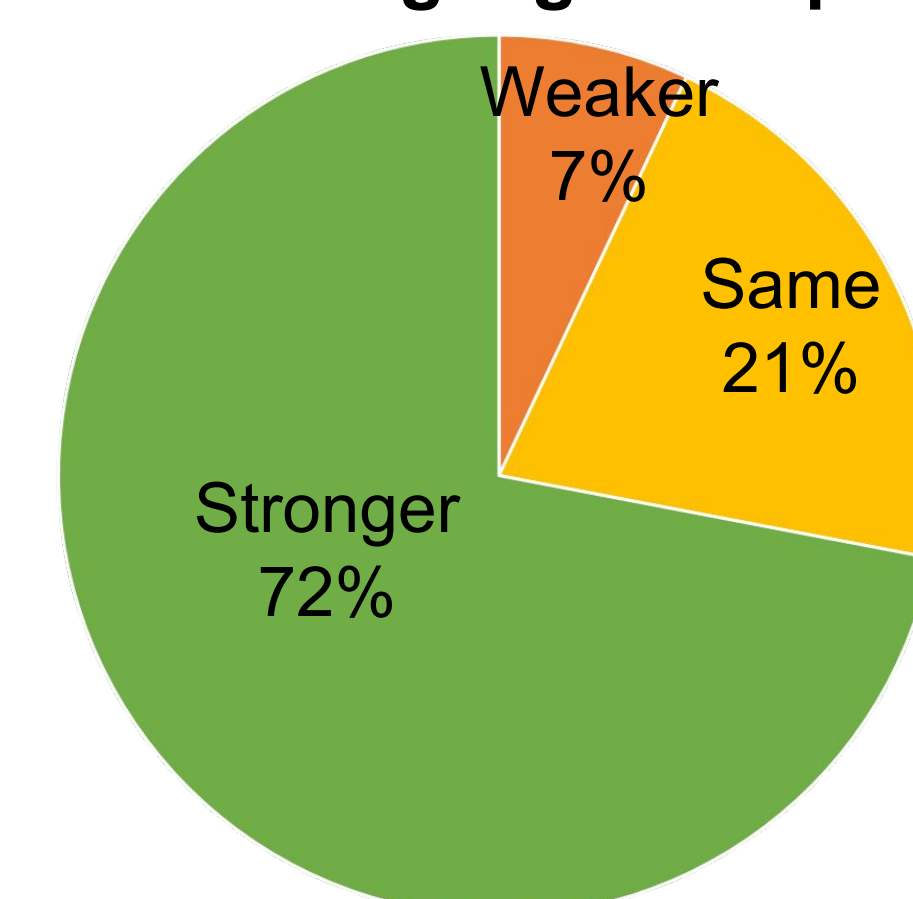
- We recruited all participants at the 2014 Minnesota State Fair, which attracted approximately 1.8 million people.
- The University of Minnesota sponsored the "Driven to Discover" Building which was dedicated to research.
- Parents completed several surveys including the CQ, while their child completed assessments for a related project.

Results

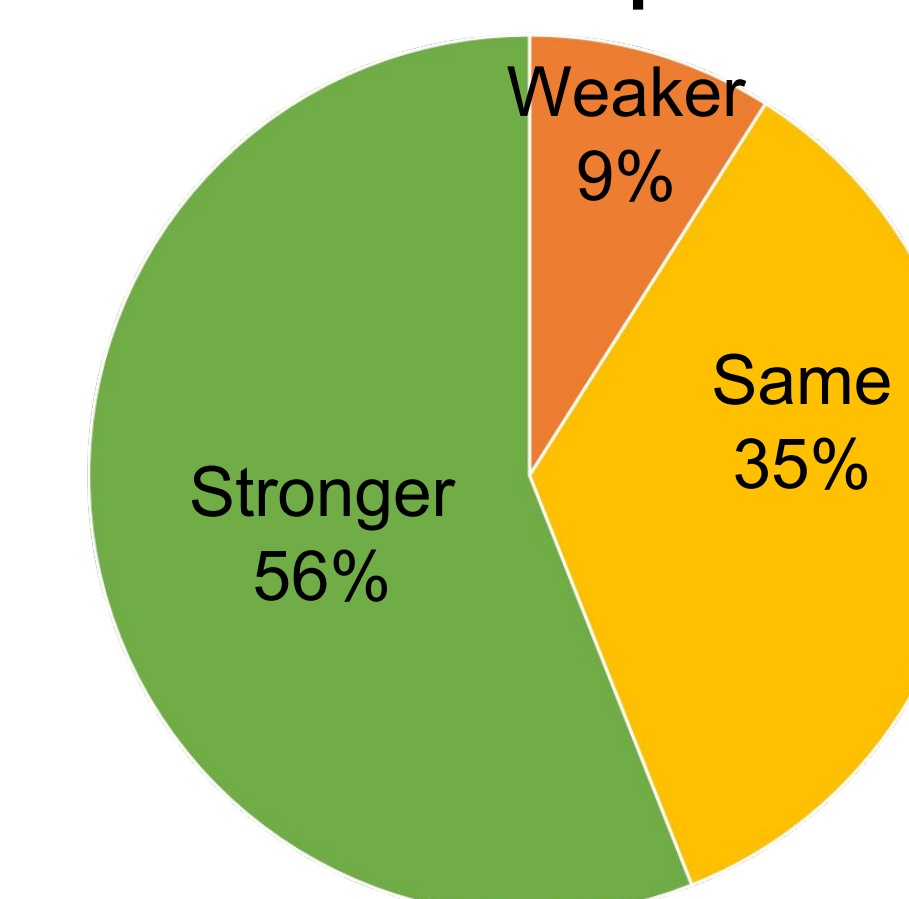
Question 1: How do parents rank their children's behaviors across domains compared to peers?

- Approximately half of the parents indicated that their children's Attention and Receptive Language skills were comparable to peers.
- Parents ranked Expressive Language and Social Skills consistently above peers.

Expressive Language Compared to Peers



Social Skills Compared to Peers



Question 2: Are there differences among parent ratings of each domain based on age?

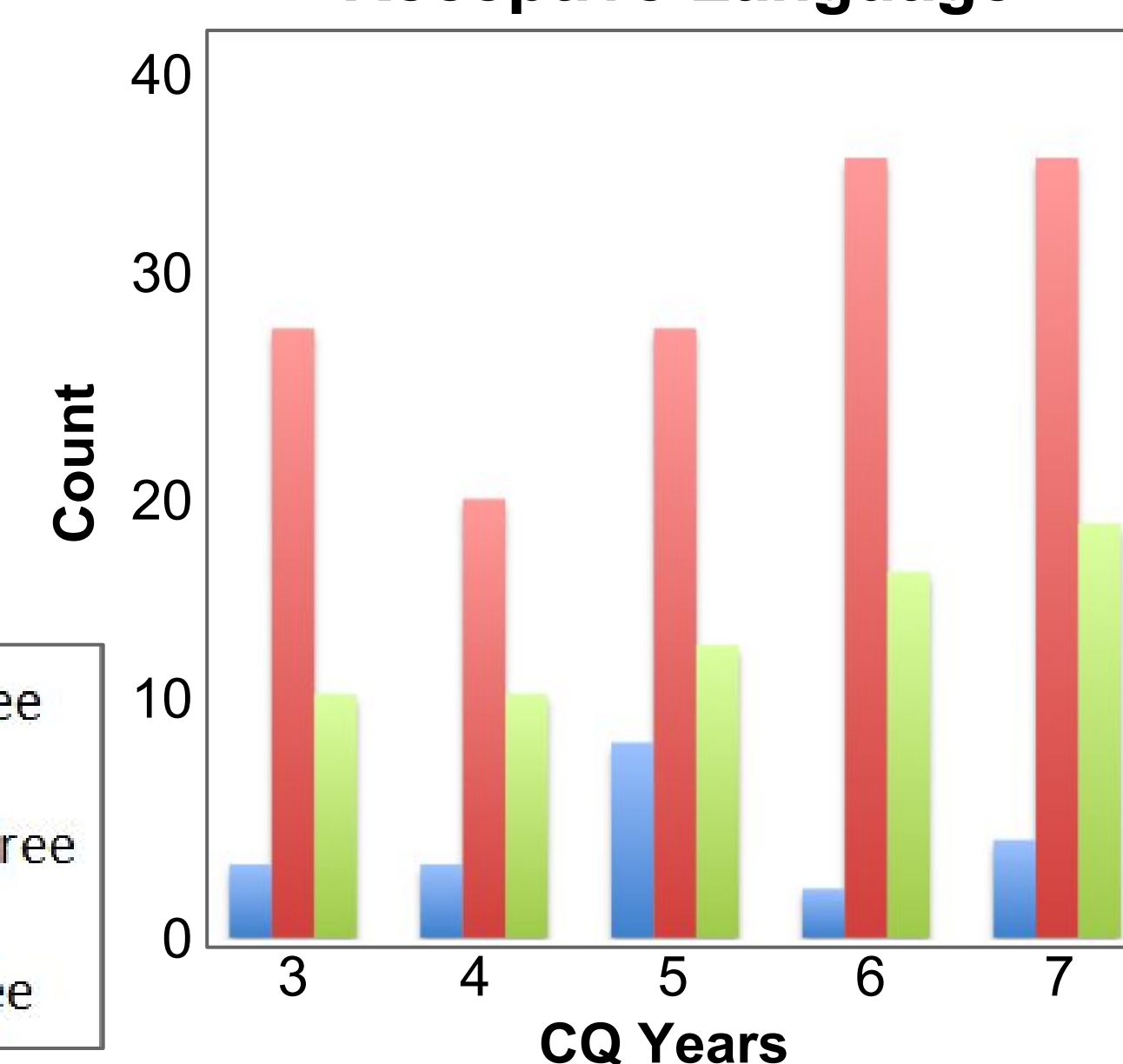
- ANOVAs revealed:
 - No significant differences in ratings of Attention across age groups ($p = .65$)
 - Receptive Language, Expressive Language, and Social Skills were marginally significant ($ps = .05, .06, \text{ and } .08$, respectively). The ratings of the 6- and 7-year-olds were higher than the ratings of the 3-year-olds.

Question 3: What is the consistency of parent responses within each domain?

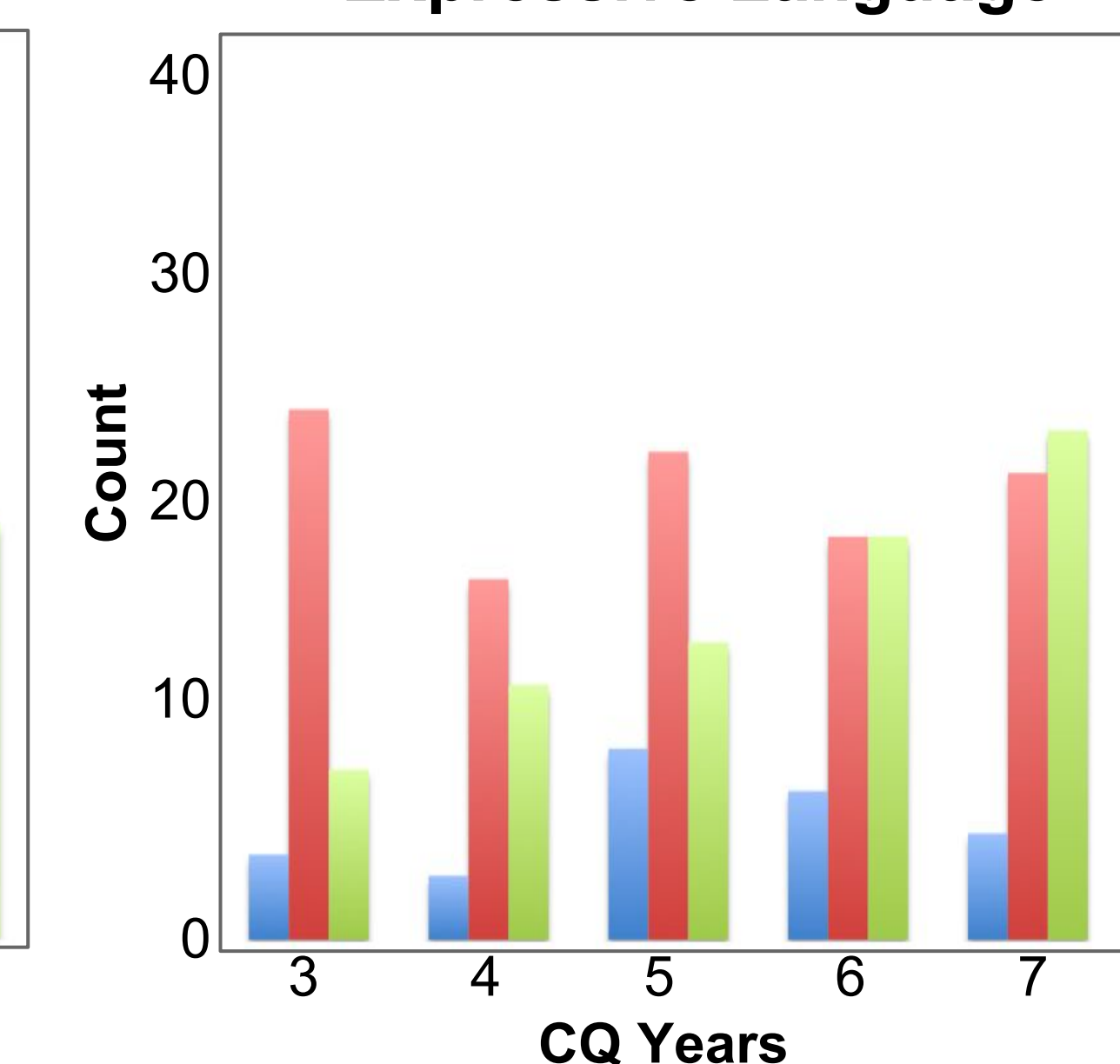
- Receptive Language, Expressive Language, and Social Skills:
 - Majority of parents assigned identical ratings for 2-3 of the three category items (87-96% of parents)
- Attention domain had less consistency with 58%-80% of parents assigning the same score to two or three of the items
- Cronbach's alpha calculation supported this trend:
 - Alphas in the questionable range (.47-.76) for the Receptive Language, Expressive Language, and Social Skills
 - Alpha in the unacceptable range for the Attention domain (.37-.57)

Consistency Ratings

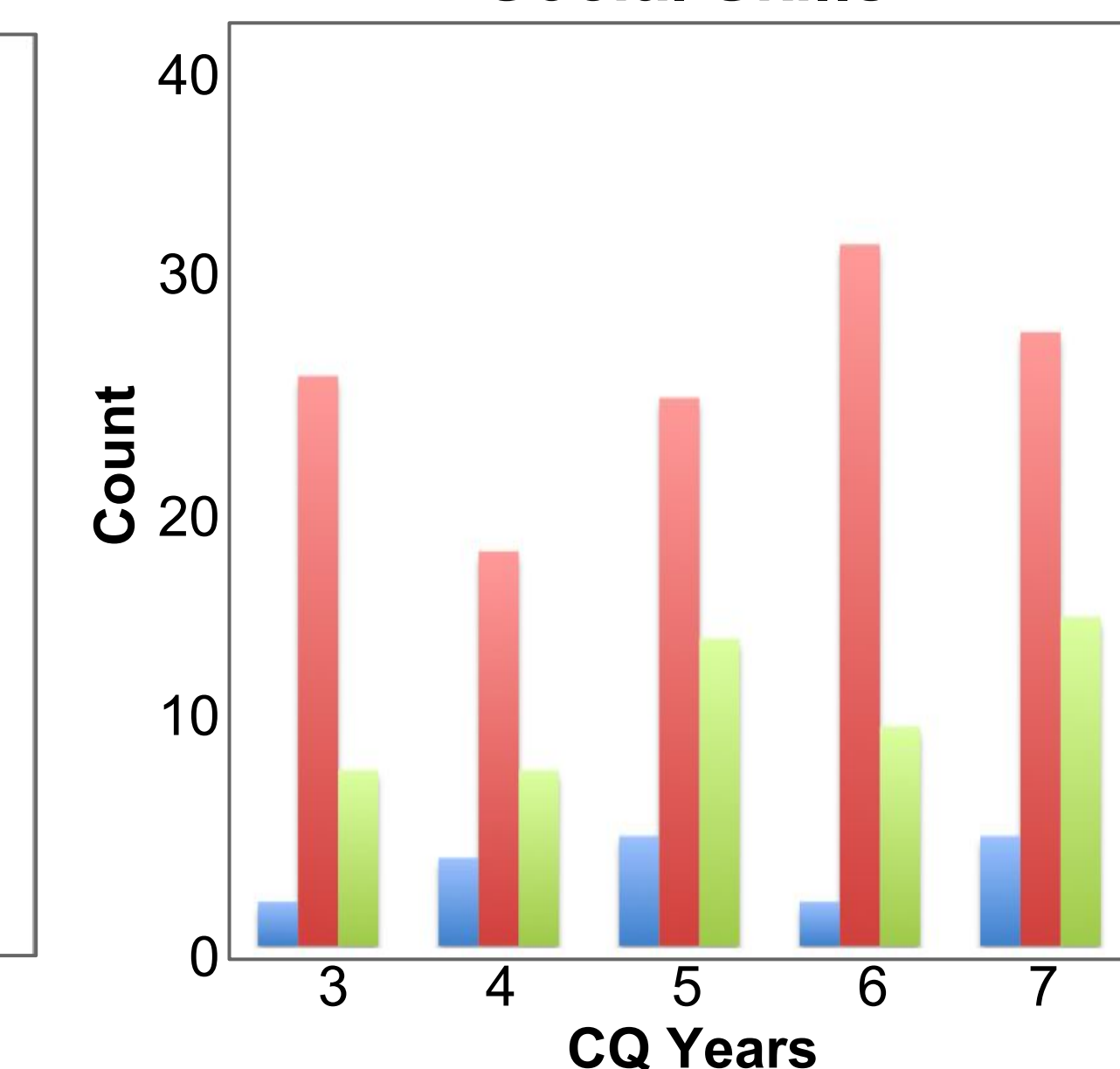
Receptive Language



Expressive Language



Social Skills



Clinical Implications

- Parents may have a tendency to overestimate their child's language and social skills
- Parent responses reflect some growth across ages
- These analyses reveal that this modified screening instrument has good consistency across domains and items, specifically for:
 - Receptive Language
 - Expressive Language
 - Social Skills

Future Study Directions

- Further development of the questionnaire is necessary to improve the consistency and sensitivity of:
 - Attention domain across and within other domains
 - Development across all domains
- In the 2015 version of the CQ, peer related questions became a separate category to better address the reliability and consistency of parent ratings across all domains
- Parents disclosed their current zip code during the 2015 Minnesota State Fair to analyze demographics
- Participants are limited to Minnesota State Fair fairgoers, which could:
 - Affect the diversity or lack thereof
 - Restrict socioeconomic groups, due to the attendance cost of the fair

Acknowledgments

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References

- Dale, P., & Cole, K. (1996). Parent report assessment of language and communication. In *Assessment of communication and language* (pp. 161-182). Baltimore: Paul H. Brookes.
- Anderson, K. L. (1989). *Screening instrument for targeting educational risk (SIFTER)*. Tampa, FL: Educational Audiology Association.