

# Public Perception and Knowledge of Environmental Factors Impacting Speech and Language Development

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## Results

### Background

A survey of current literature regarding environmental effects on speech and language development resulted in identification of the following potential factors: parent-child interaction (Fish & Pinkerman, 2003; Pancsofar & Vernon-Feagans, 2006; Hoff & Tian, 2005), parent knowledge about development (Rowe et al., 2015), home environment (Garret-Peters et al. 2015), socioeconomic status (Nicholson et al., 2012; Hoff, 2003; Hoff & Tian, 2005), parent education level (Abel et al., 2016; Pancsofar & Vernon-Feagans, 2006; Hoff & Tian, 2005), dialect (Reynolds & Fish, 2010), environment-brain interaction (Johnson et al., 2016; Noble et al., 2015; Monastersky, 2008), and the effects of speech and language development on overall development (Johnson et al., 2016). The U.S. Census Bureau identified the West Virginia poverty rate as 17.9% in 2017. Many of the above studies described the importance of SES, especially low SES, in interacting with the above factors. The current study sought to understand the perceptions and knowledge of the general public related to environmental factors impacting speech and language development, as well as to obtain descriptions of activities and circumstances helpful and harmful with regard to a child's speech and language development. The authors sought to compare responses based on a number of demographic factors, with special interest in location, and giving specific consideration to the nature of responses from WV and non-WV residents. The authors nondirectionally hypothesized a difference in these and other demographic groups.

### Methods

A 26-question survey, distributed via social media by the authors, through email to teachers in Fayette County, WV, and through email to teachers and staff at Kiwanis Daycare in Huntington, WV collected demographic data including gender, age group, state of residence, occupation, state where an individual maintained employment (if applicable), spousal occupation, teaching status, number of children, and educational background in child development. The survey also contained questions related to perception and knowledge about environmental factors in speech and language development mentioned above.

See attached handout for demographic information.

### Disclosures

No authors of this presentation have any financial relationship with this study.

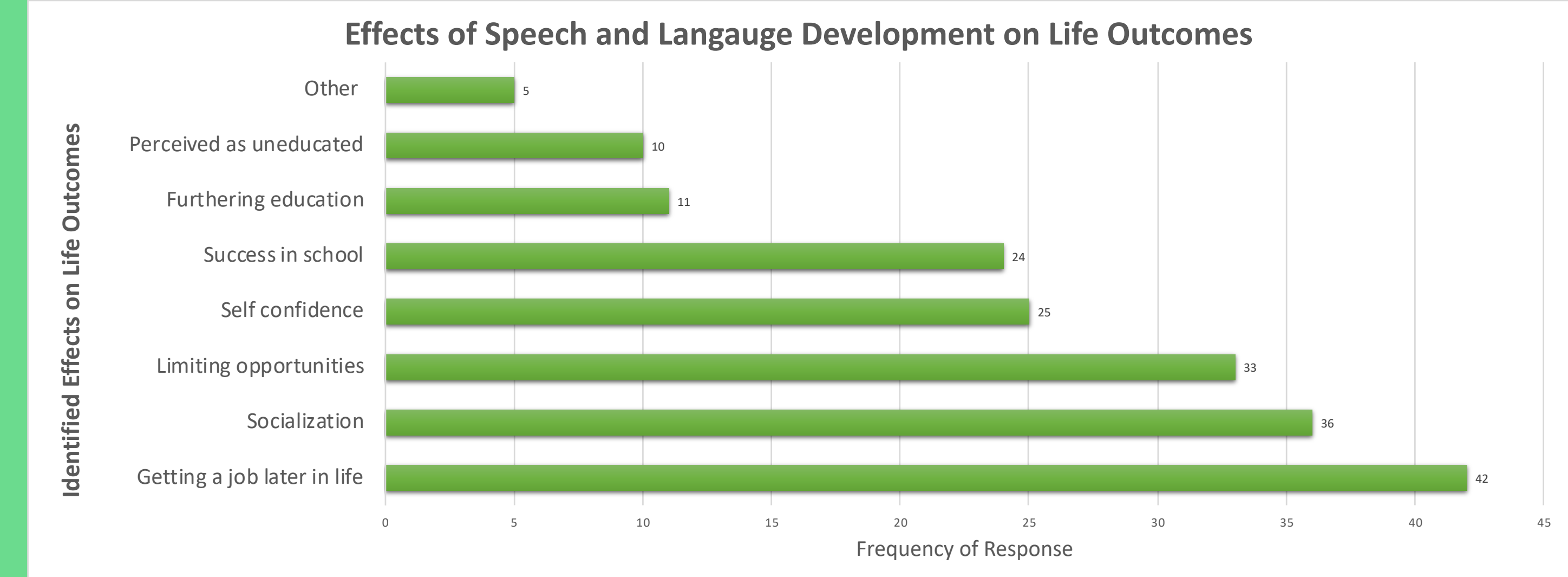
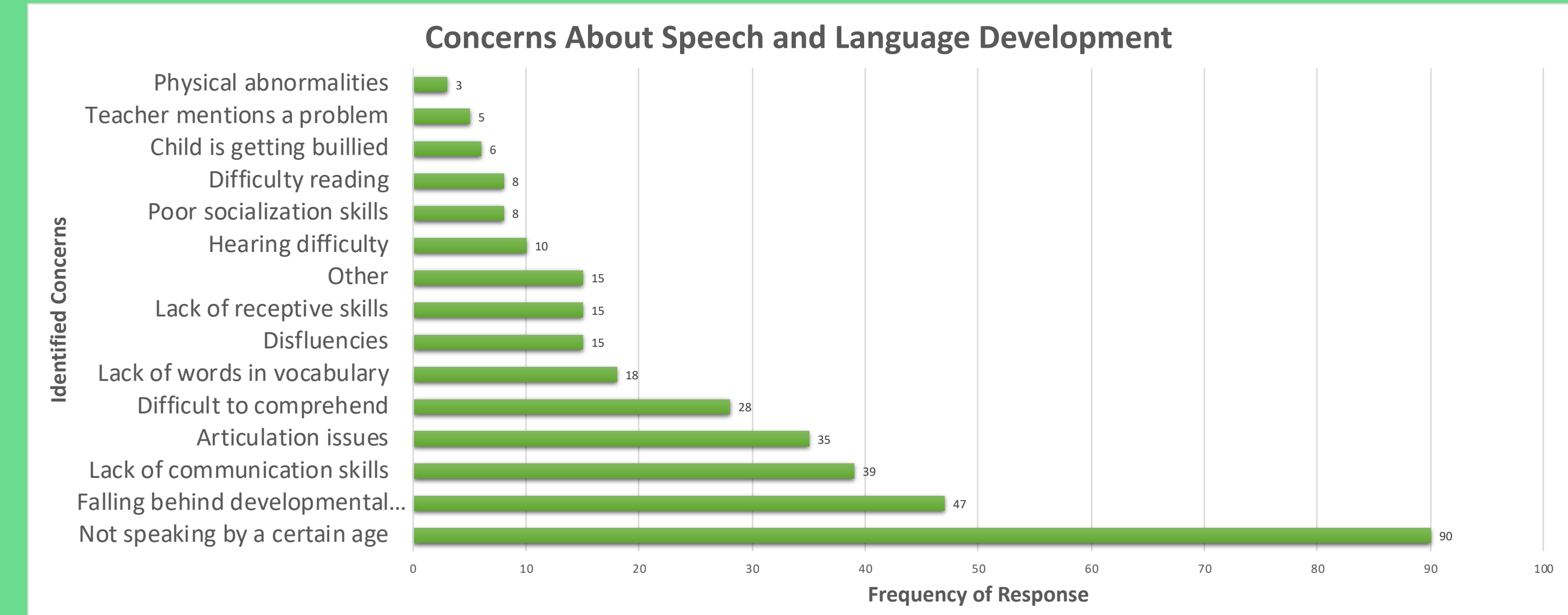
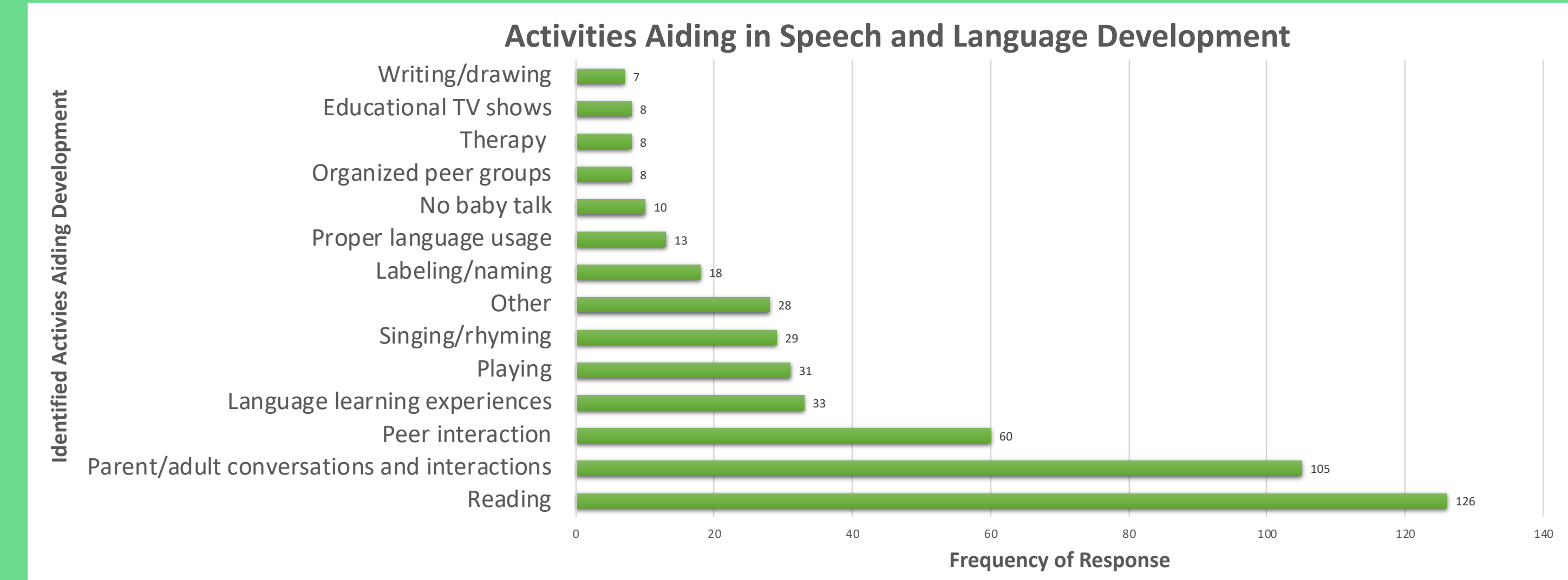
Questions 13-18 used the following rating scale:

- 1 – Not at all important
- 2 – Somewhat unimportant
- 3 – Neutral
- 4 – Somewhat important
- 5 – Very Important

How important do you feel ____ is for a child's language development?	Mean Rating
Q13 Parent child interaction	Mean= 4.99
Q14 Parent knowledge about language development	Mean= 4.54
Q15 Home environment	Mean= 4.91
Q16 Socioeconomic status	Mean= 3.76
Q17 Parent education level	Mean= 3.84
Q18 Dialect	Mean= 3.77

Question	Frequency and (Percentage) of "Yes" responses
Q 19 Do you feel that environment can change the physical structure and function of the brain?	247 (90.15%)
Q20 Do you feel speech and language development have any effects on a child's overall development?	267 (97.45%)
Q22 Do you feel that a child's speech and language development have an impact on their outcomes later in life?	261 (95.26%)

The following series of charts represents identified themes from participant responses to open-ended questions. The numerical data represent the number of times a theme appeared across all responses to a particular question. Participants generated responses identifying perceptions about the following: speech and language development impact on overall development, impact on life outcomes, concerning characteristics of a child's speech and language development, harmful factors in a child's speech and language development, and activities helpful for a child's speech and language development.



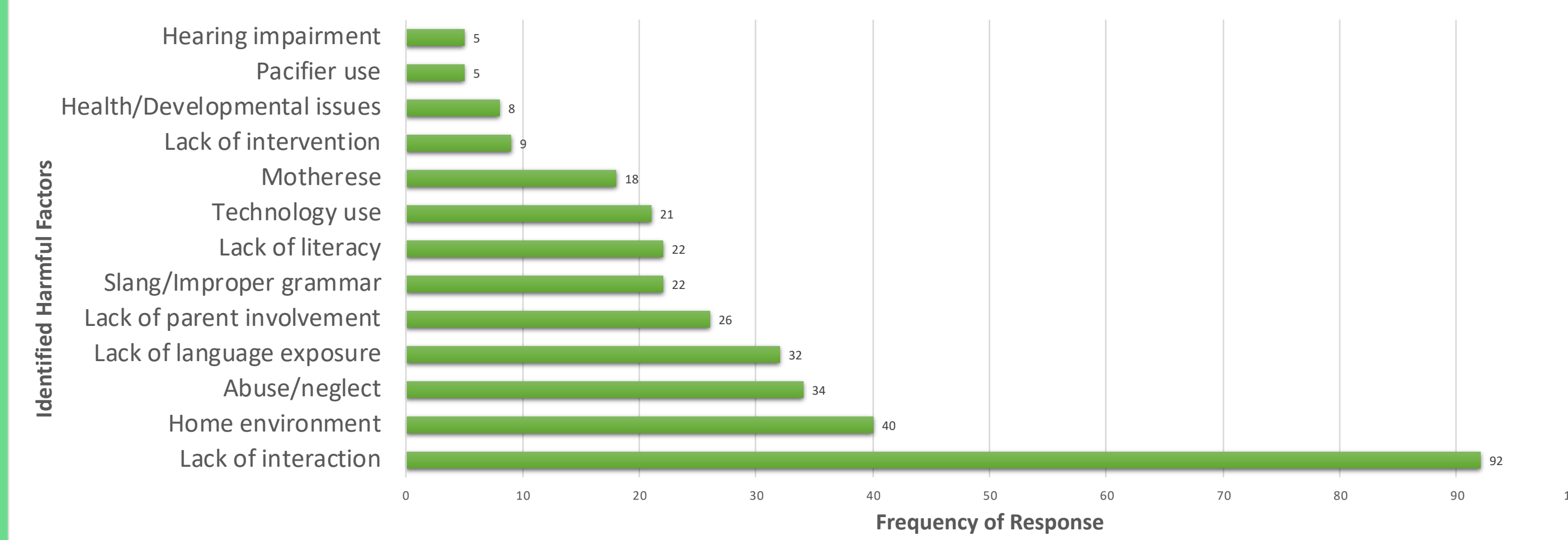
### Discussion / Implications

Participants across all examined demographic groups largely agreed with current research related to the importance of identified environmental factors in speech and language development with the exception of dialect. Study participants placed more importance on dialect than the reviewed literature suggested. However, the current study did not operationally define dialect, so it is not possible to ascertain why respondents answered in the described manner. Future research should examine perceptions about the role of dialect in speech and language development more specifically.

### References

Please see attached reference page for complete list of references.

Perception of Harmful Factors in Speech and Language Development



Perception of Areas Affected by Speech and Language Development

