* **Confirm that all dependent variables or measures that were analyzed for this article’s target research question have been reported in the Methods section(s).**
  + All dependent measures analyzed for the target research question have been reported in the Methods, except that we operationalized two measures of overall accuracy on the VLP task.  One measure was the traditional window accuracy analogous to that used in studies of spoken language processing; a second measure unique to this task is first-shift accuracy. First-shift accuracy was highly correlated with the traditional accuracy measure and relations to vocabulary and age were identical for both. For ease of exposition, we report only the traditional accuracy measure because it will be more familiar to readers.
* **Please copy and paste from your manuscript the sentence(s) that explain(s) how your sample size was determined and your stopping rule:**
* Our sample size was determined by our success over the 2-year period of an NIDCD R21 grant in recruiting and testing children and adults who were native ASL users.
* **What is it that the reader will learn from this article that she or he did not (or could not) have known before?**
  + This study provides the first evidence that young ASL learners’ visual language processing skills undergo developmental changes that are linked to meaningful vocabulary outcomes, parallel to results from studies with hearing children learning spoken language. Moreover, we found similar patterns for deaf and hearing ASL-learning children, suggesting that experience with ASL, and not deafness, shapes visual language processing skill.
* **Why is that knowledge important for psychology?**
  + The age- and vocabulary-related links we found contribute to the body of literature highlighting the parallels between signed and spoken language development when children are exposed to native, high quality sign input. These parallels suggest that real-time language processing is a basic human skill that operates regardless of language modality. It is important to emphasize these parallels because there is still debate about whether children born with hearing loss are helped or hindered by learning sign language.
* **How are the claims made in the article justified by the methods used?**
  + We set out to test how the development of skill in visual language processing is related to young children’s age and vocabulary size. We developed a novel measure of processing skill informed by decades of research with children learning spoken language. Our measure of vocabulary size is based on parent report, which is a widely used and reliable/valid method for measuring the number words children know. We think that each of these methods accurately measure the constructs of interest and therefore justify our claims about the relation between the two.

**Reviewers**

* **Avoid:** Rachel Mayberry, Amy Lieberman, Arielle Borovsky
* **Request:** Laura-Ann Petito, Thomas Allen, Carol Padden

**Author contributions**

* K. MacDonald, V.A. Marchman, D. Corina, and A. Fernald developed the study concept. All authors contributed to the study design. Testing and data collection were performed by K. MacDonald and T. LaMarr. K. MacDonald and V.A. Marchman performed the data analysis and interpretation. K. MacDonald, V.A. Marchman, and A. Fernald drafted the manuscript, and all authors provided critical revisions. All authors approved the final version of the manuscript for submission.