*Behavior Research Methods* Editorial Board

Dear Colleagues,

We are writing to submit the manuscript entitled “A Thorough Evaluation of the Language Environment Analysis (LENAR) System" for consideration. *Behavior Research Methods* is the ideal venue for this paper because it contains the most thorough evaluation to date of the LENA system, an innovative method to study language acquisition. This method is increasingly gaining importance in our field, which explains why three smaller scale evaluation papers and one discussion paper have already been published in your journal.

Our own paper improves upon previous work in two key ways. First, whereas all previous evaluation work focuses on one corpus gathered from one population, we test the system with data from five different populations. Second, we attempted to make this evaluation as systematic, thorough, and generalizable as possible; for instance, while most previously published studies (including LENA’s own) report accuracy and validation on only some of LENA's metrics, we check all of them.

As a result, we are in a uniquely strong position to draw two key conclusions about this system. First, our results indicate that the system is quite *robust to variation across corpora*, and thus can be used with similar accuracy in different datasets. Second, this *accuracy is extremely variable across metrics*. For instance, we find LENA's accuracy on overall word counts and child vocalization counts to be quite high, probably due to female and some children's speech being tagged quite well. In contrast, accuracy of male voice detection is quite poor, making LENA an inappropriate tool for households where males are primary caregivers; or for studies aiming to compare input from female versus from male adults.

We recommend the following reviewers

1. Hillary Ganek

University of Toronto

[Hillary.ganek@sickkids.ca](mailto:Hillary.ganek@sickkids.ca)

1. Adriana Weisleder

Northwestern University

[Adriana.weisleder@northwestern.edu](mailto:Adriana.weisleder@northwestern.edu)

1. Tristan Mahr

Wisconsin Intelligibility, Speech and Communication Laboratory

[tjmahrweb@gmail.com](mailto:tjmahrweb@gmail.com)

We thank you for your consideration,

Alejandrina Cristia, on behalf of all authors