

# The Longitudinal Impact of LENA Grow on Conversational Turns

The LENA Grow professional development program has proven effective at helping educators foster more conversational turns in early learning settings.

This report explores an important follow-up question: **Do the increased conversational turn rates endure after the LENA Grow program has ended?** After five weeks of coaching and reviewing feedback reports, do teachers continue to put into practice the strategies they learned during LENA Grow?

## LENA Grow's Benefits Endure

Researchers analyzed a set of 113 classrooms that:

- Participated in LENA Grow
- Had average or below average interaction levels before participating in LENA Grow
- Later participated in a second sequence of LENA Grow
- Had a gap of at least four months between the end of the first sequence and the beginning of the next

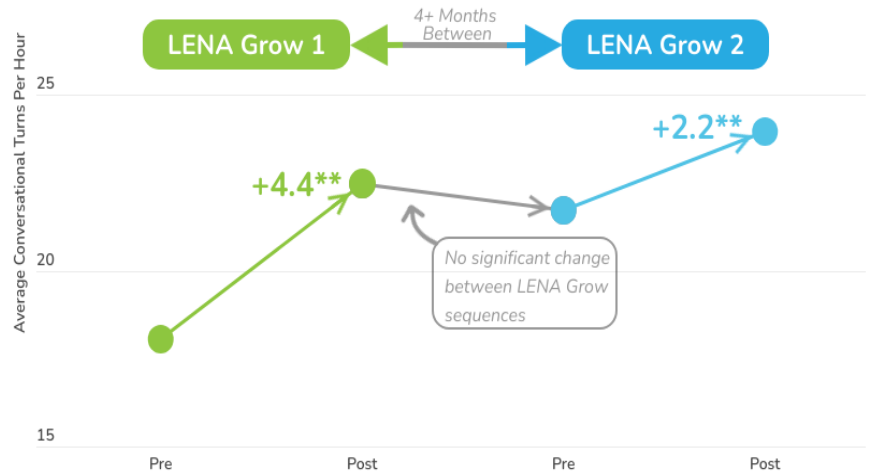


By the end of the first LENA Grow sequence, these classrooms had seen an average increase of +4.4 conversational turns per hour. Four or more months later, at the beginning of the second sequence, there was no significant drop-off.

LENA Grow is a data-driven professional development program for early childhood educators. The program focuses on improving language environments and increasing teacher-child conversational turns. Conversational turns, also known as serve-and return interactions, have previously been linked to brain structure<sup>1</sup> and function,<sup>2</sup> healthy social skills,<sup>3</sup> higher IQ scores,<sup>4</sup> literacy skills,<sup>5</sup> and preschool vocabulary.

This suggests that **early childhood educators who participate in LENA Grow continue to apply the strategies they learn even after the program ends.**

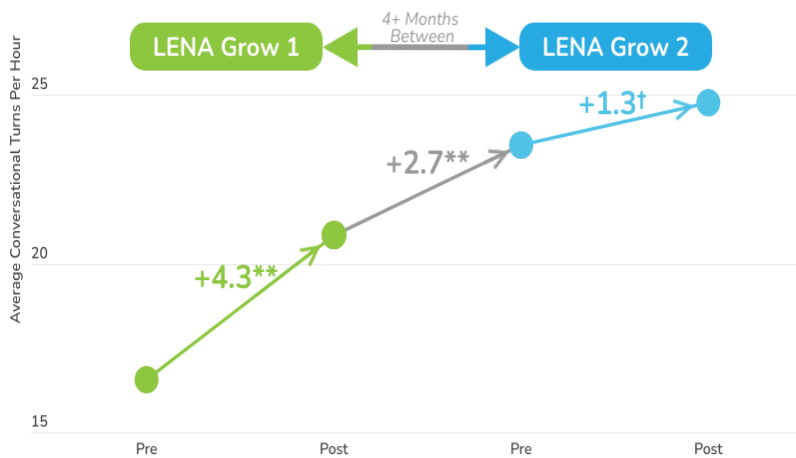
Educators continued increasing their conversational turn rates during their second sequence. In some of these classrooms, substantial child turnover took place between sequences, showing that **teachers successfully implemented the strategies with new children.**



\*\* indicates that the change was statistically significant at the  $p < 0.01$ , \* at  $p < 0.05$ , and † at  $p < 0.10$

## Individual Children Maintain Gains

Researchers also analyzed conversational turn data from 1,107 children who participated in both LENA Grow sequences. Of those children, 300 began their first sequence of LENA Grow with a conversational turn rate in the bottom third of their classroom. This means they experienced fewer interactions than most of their peers.



\*\* indicates that the change was statistically significant at the  $p < 0.01$ , \* at  $p < 0.05$ , and † at  $p < 0.10$

- During LENA Grow 1, these 300 children experienced an average increase of +4.3 conversational turns per hour.
- In the four or more months between sequences, they continued experiencing more interactions, gaining an average of an additional +2.7 turns.
- During LENA Grow 2, the children continued experiencing more interactions, gaining an average of an additional +1.3 turns.

Between the beginning of Grow 1 and the end of Grow 2, children gained an average increase of 8.3 conversational turns per hour. These results suggest that **LENA Grow teachers continue to apply strategies for boosting interactions, especially with the children who need them most.**

## Citations

- <sup>1</sup> Romeo, R. R., Segaran, J., Leonard, J. A., Robinson, S. T., West, M. R., Mackey, A. P., Yendiki, A., Rowe, M. L., & Gabrieli, J. D. E. (2018). Language exposure relates to structural neural connectivity in childhood. *The Journal of Neuroscience*, 38(36), 7870–7877. <https://doi.org/10.1523/jneurosci.0484-18.2018>
- <sup>2</sup> Romeo, R. R., Leonard, J. A., Robinson, S. T., West, M. R., Mackey, A. P., Rowe, M. L., & Gabrieli, J. D. (2018). Beyond the 30-million-Word Gap: Children’s conversational exposure is associated with language-related brain function. *Psychological Science*, 29(5), 700–710. <https://doi.org/10.1111/sode.70019>
- <sup>3</sup> Gómez, E., & Strasser, K. (2025). Conversational Turns at Early Childhood Predicts Socioemotional Development at School Age. *Social Development*, 34(4). <https://doi.org/10.1111/desc.13109>
- <sup>4</sup> Gilkerson, J., Richards, J. A., Warren, S. F., Oller, D. K., Russo, R., & Vohr, B. (2018). Language experience in the second year of life and Language Outcomes in late childhood. *Pediatrics*, 142(4). <https://doi.org/10.1542/peds.2017-4276>
- <sup>5</sup> Weiss, Y., Huber, E., Ferjan Ramírez, N., Corrigan, N. M., Yarnykh, V. L., & Kuhl, P. K. (2022). Language input in late infancy scaffolds emergent literacy skills and predicts reading related white matter development. *Frontiers in Human Neuroscience*, 16. <https://doi.org/10.3389/fnhum.2022.922552>
- <sup>6</sup> Duncan, R. J., Anderson, K. L., King, Y. A., Finders, J. K., Schmitt, S. A., & Purpura, D. J. (2022). Predictors of preschool language environments and their relations to children’s vocabulary. *Infant and Child Development*, 32(1). <https://doi.org/10.1002/icd.2381>