

## Research Report

# Classroom Ratios + Conversational Turns

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Teacher-child ratios — the number of teachers vs. children in a classroom — are a major factor in classroom quality. Lower ratios allow educators to provide more individualized supports, safer settings, and efficient classroom management. In this report, we examine the role teacher-child ratios may play in the number of conversational turns children experience in early learning classrooms.



**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.<sup>6</sup>

## A recipe for greater classroom quality

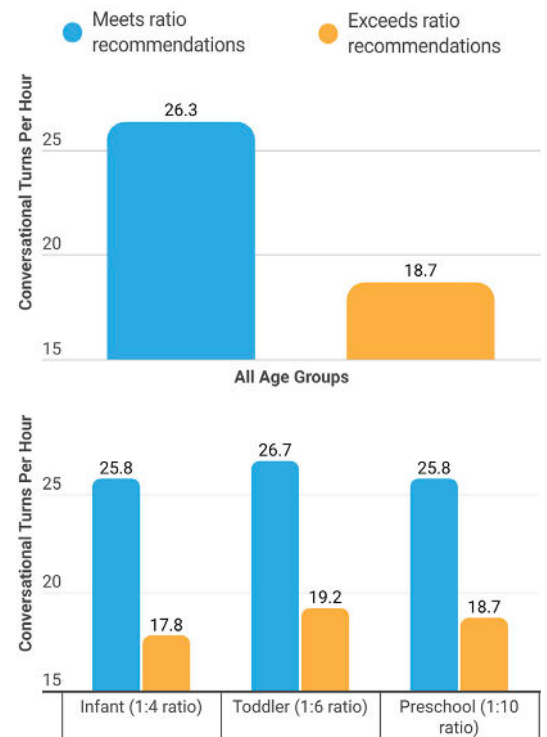
Combining lower classroom ratios and a focus on conversational turns leads to powerful outcomes. In a data analysis conducted by LENA researchers, children experienced more conversational turns in classrooms that met NAEYC's recommended ratios.<sup>7</sup>

Children in classrooms that exceeded ratio recommendations were 1.8 times more likely to experience language isolation, defined as experiencing fewer than five conversational turns per hour for the majority of the day.

\*Sample size was 25,254 children, spanning 29 states plus Washington, D.C.

## 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/10.1177/0956797617742725>
- <sup>3</sup> Gómez, E., & Strasser, K. (2021). Language and socioemotional development in early childhood: The role of conversational turns. *Developmental Science*, 24(5). <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>
- <sup>7</sup> NAEYC (2018). Staff-to-Child Ratio and Class Size. [https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/accreditation/early-learning/staff\\_child\\_ratio\\_0.pdf](https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/accreditation/early-learning/staff_child_ratio_0.pdf)



## For more information, contact:

303-441-9085 | [info@lena.org](mailto:info@lena.org) | [www.LENA.org](http://www.LENA.org) @LENAEarlyTalk

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