

Research Report

LENA Grow and Self-Esteem in Young Children

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By age 5, children have already developed a keen sense of self-esteem.¹ Therefore, the infant, toddler, and preschool years are a critical period for nurturing healthy self-confidence in children.

In this report, we examine the role conversational turns may play in a child's early development of self-esteem. We also examine the role LENA Grow — a professional development program designed to increase interactions between teachers and children — may play in supporting self-esteem among children in early childhood education settings.



Conversational turns, also known as serve-and-return interactions, have previously been linked to brain structure² and function,³ healthy social skills,⁴ higher IQ scores,⁵ literacy skills,⁶ and preschool vocabulary.⁷

Finding 1: Participation in LENA Grow increases child-initiated conversational turns

Conversational turns are either teacher-initiated or child-initiated. Child-initiated turns can be considered a sign of high self-esteem.

Children who initiated fewer conversational turns than their peers prior to LENA Grow experienced large increases in child-initiated conversational turns after LENA Grow. Children with low child-initiated turns moved from the 7th to the 21st percentile, and children with very low child-initiated turns moved from the 3rd to the 15th percentile.

Sample	N	% of All	Mean CI-TPH		Change Statistics		
			Before LENA Grow	After LENA Grow	t	p-value	Cohen's d
Low CI-TPH (1 SD)	4,406	16%	2.8	6.0	57.99	<.001	1.79
Very Low CI-TPH (1.5 SD)	1,411	5%	1.5	5.1	39.25	<.001	2.93

Total Sample = 25,854; Age Range: 2-60 months ; CI-TPH = Child-Initiated Turns Per Hour

Finding 2: Conversational turns are predictive of self-esteem

Children who were rated as “very frequently” showing confidence on the Devereux Early Childhood Assessment (DECA)* experienced significantly higher numbers of conversational turns.

Children Rated 0-3			Children Rated 4			Independent Samples T-Test				
N	Mean TPH	SD	N	Mean TPH	SD	Diff	t	df	Sig.	ES
82	24.01	13.70	21	30.94	13.48	6.93	2.08	101	0.040	0.510

Age Range: 12-67 months, mean age 43 months; TPH = Turns Per Hour

Finding 3: Participation in LENA Grow increases self-esteem

After being in a LENA Grow classroom, children were more likely to be rated as “very frequently” exhibiting indications of high self-esteem.

% of Sample Rated "Very Frequently"				DECA Item	Before LENA Grow	After LENA Grow	Difference
DECA Item	Before LENA Grow	After LENA Grow	Difference	13	27.2%	47.6%	+20.4%
5	20.4%	35.0%	+14.6%	15	27.2%	47.6%	+20.4%
7	19.4%	26.2%	+6.8%	31	23.1%	46.2%	+23.1%
10	8.7%	22.3%	+13.6%	33	11.5%	23.1%	+11.6%

N = 206; Age Range: 12-67 months

*Devereux Early Childhood Assessment (DECA) Items

5: Shows confidence in his/her abilities (for instance, says “I can do it!”)

7: Keeps trying when unsuccessful (shows persistence)

10: Tries different ways to solve a problem

13: Tries or asks to try new things or activities

15: Starts or organizes play with other children

31: Makes decisions for himself/herself

33: Chooses to do a task that was hard for him/her

DECA Ratings

0: Never

1: Rarely

2: Occasionally

3: Frequently

4: Very frequently

The Results Are Powerful

A young child’s self-esteem is linked to how many conversational turns they experience and LENA Grow has a positive impact on self-esteem.

To learn more about how you can increase conversational turns that lead to better outcomes for children in your care, **visit LENA.org.**

Citations

¹ Cvencek, D., Greenwald, A. G., & Meltzoff, A. N. (2016). Implicit measures for preschool children confirm self-esteem’s role in maintaining a balanced identity. *Journal of Experimental Social Psychology*, 62, 50–57. <https://doi.org/10.1016/j.jesp.2015.09.015>

² 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>

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⁴ 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>

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