

# NCRTI Reviews the Fast ForWord Language Series

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## Overview

Using funding from the US Department of Education's Office of Special Education Programs (OSEP), the National Center on Response to Intervention (NCRTI) was established by the American Institutes for Research and researchers from Vanderbilt University and the University of Kansas. The Center provides guidance to educators on implementing proven models for Response to Intervention (RTI) and Early Intervening Services (EIS).

## Methodology

NCRTI reviewed studies evaluating the impact of various products on struggling students. The review focused on the following components of the study:

- Participants: students in 5<sup>th</sup> grade and below; students below the 30<sup>th</sup> percentile or groups that average below the 25<sup>th</sup> percentile;
- Study design: two group, preferably random assignment. Analysis showing comparable initial skills between the two groups, demographic breakdown showing similar demographics between the two groups;
- Fidelity of implementation: data showing the product was used as designed;
- Study measures: accurate and relevant (psychometrically valid). Proximal measures assess skills directly targeted by the intervention; distal measures assess aspects of competence that are related to the targeted skills.

In addition to reporting on the four components of interest, NCRTI reported the effect size. The effect size quantifies the impact of the intervention by comparing the post-intervention skills of the experimental and the comparison group. An effect size of 0.5 means that the average student in the experimental group (i.e. the student at 50<sup>th</sup> percentile) performed as well as the student in the comparison group who was at the 69<sup>th</sup> percentile while an effect size of 1.0 means that the average experimental participant performed as well as the student in the comparison group at the 84<sup>th</sup> percentile. An effect size around 0.5 is generally considered a medium effect size while an effect size greater than 0.8 is considered large.

## Results

NCRTI reviewed three studies on the Fast ForWord Language products. The following table summarizes those studies, including their designs and effect sizes. For more information, please see the NCRTI website or the reports on the studies.

Study Information	Study Authors	Miller, Merzenich, Tallal, DeVivo, Linn, et al.	Scientific Learning Corporation	Slattery
	Publication Year	1999	2004	2003
	# of Students	388	50	60
	Study Design	Randomized Control Trial (RCT)	Two-Group, Matched	Randomized Control Trial (RCT)
	Effect Size (Proximal)	Large (7.45)	Medium (0.49)	Large (1.46)
	Effect Size (Distal)	--	Medium (0.52)	Large (1.05)
	Statistically Significant	Yes	Yes	Yes

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**Number of Studies:**

3

**Number of Students:**

498

**Grade Level:**

1<sup>st</sup> – 5<sup>th</sup> Grade

**Tests:**

Qualitative Reading Inventory II (QRI)  
 Woodcock Johnson Test of Achievement

Test of Auditory Comprehension of Language (TACL)

Clinical Evaluation of Language Fundamentals (CELF)

Phonological Awareness Test (PAT)

Yopp Singer Test of Phoneme Segmentation

## References

Coe, R. (2002). It's the Effect Size, Stupid: What effect size is and why it is important. Annual Conference of the British Educational Research Association. [www.leeds.ac.uk/educol/documents/00002182.htm](http://www.leeds.ac.uk/educol/documents/00002182.htm)

Miller, SL, Merzenich, MM, Tallal, P, DeVivo, K, Linn, N, Pycha, A, Peterson, BE, Jenkins, WM, (1999). Fast ForWord Training in Children with Low Reading Performance. Proceedings of the 1999 Netherlands Annual Speech-Language Association Meeting. [www.scilearn.com/alldocs/rsrch/sbr/30052ffwlanguageprodprpt.pdf](http://www.scilearn.com/alldocs/rsrch/sbr/30052ffwlanguageprodprpt.pdf)

National Center on Response to Intervention.

[www.rti4success.org/instructionTools](http://www.rti4success.org/instructionTools)

Scientific Learning Corporation. (2004). Improved Language and Early Reading Skills by Students Who Used Fast ForWord Language to Reading, MAPS for Learning: Educator Reports, 8(1)1-4. [www.scilearn.com/alldocs/rsrch/sbr/30053ffwltorprodprpt.pdf](http://www.scilearn.com/alldocs/rsrch/sbr/30053ffwltorprodprpt.pdf)

Slattery, CA. (2003). The Impact of a Computer-Based Training System on Strengthening Phonemic Awareness and Increasing Reading Ability Level (Doctoral Dissertation). Available from ProQuest Information and Learning Company (UMI No. 3103754). (summary available at: [www.scilearn.com/alldocs/rsrch/sbr/30186bethlehemdurpt.pdf](http://www.scilearn.com/alldocs/rsrch/sbr/30186bethlehemdurpt.pdf))

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