

Summary of Quantitative Intervention Studies

	Study title	Authors (year)	Included in previous version of systematic review	Location researcher	Implementer	Context	Outcomes	Sample	Study design	Intervention/program	Analysis
1	Lectura Compartida de Cuentos y Aprendizaje de Vocabulario en Edad Preescolar: Un Estudio de Eficacia	Larrain, Strasser, & Lissi (2012) Experiment 1	Yes	Chile	Academic	Santiago, Chile	Vocabulary acquisition	112 children from three public kindergartens	Randomized controlled trial (RCT)	Shared book reading without word elaboration	T test
2	Lectura compartida de cuentos y aprendizaje de vocabulario en edad preescolar: un estudio de eficacia	Larrain, Strasser, & Lissi (2012) Experiment 2	Yes	Chile	Academic	Santiago, Chile	Vocabulary acquisition	62 children from three public kindergartens	RCT	Shared book reading with word elaboration	T test

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3	Desarrollo de Habilidades Conductuales Maternas Para Promover la Alfabetización Inicial en Niños Prescolares	Tapia & Benitez (2013)	Yes	Mexico	Academic	Mexico	Literacy practices in mothers	20 women with limited literacy practices whose preschool children showed low levels in preacademic and linguistic skills	RCT	Training for mothers to conduct activities and use strategies to promote language and preacademic skills related to early literacy in preschool children using joint reading of stories and puppet play	Analysis of variance (ANOVA)
4	The Effects of Early Childhood Education on Literacy Scores Using Data From a New Brazilian Assessment Tool	Felicio, Terra, & Zoghbi (2011)	Yes	Brazil	Ministry of Education	Brazil	Literacy scores	1986 second-grade students	Quasi-experimental	Enrollment in preschool	Propensity score matching
5	Exploring Teachers' Read-Aloud Practices as Predictors of Children's Language Skills: The Case of Low Income Chilean Preschool Classrooms	Gomez Franco (2014)	Yes	Chile	Ministry of Education	Chile	Teachers' speech characteristics; teachers' read-aloud strategies	913 students across 47 preschools	RCT	Teacher training program for teachers in preschool	ANOVA

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6	The Impact of Improving Nutrition During Early Childhood on Education Among Guatemalan Adults	Maluccio et al. (2009)	Yes	United States	Institute of Nutrition of Central America and Panama	Guatemala	Grades completed; reading comprehension; nonverbal cognitive	1,471 adults from one of four villages	RCT	Provision of nutrient dense drink to children	Ordinary least squares (OLS) regression analysis
7	Parents as Reading Tutors for First Graders in Brazil	Murad & Topping (2000)	Yes	United States	Academic	Brazil	Reading comprehension; reading fluency	48 students from a single school	RCT	Training for parents to participate in paired reading with their children	Bivariate comparison
8	The Effect of a Multicomponent Literacy Instruction Model on Literacy Growth for Kindergartners and First-Grade Students in Chile	Pallante & Kim (2013)	Yes	Chile	Collaborative Language and Literacy Instruction Project	Chile	Letter naming; word reading; vocabulary; phonemic segmentation fluency	312 kindergartners; 305 first graders	Cluster-RCT	Teacher training during five workshops for teachers complemented by teaching resources	Difference-in-difference regression analysis
9	Letter Names and Phonological Awareness Help Children to Learn Letter-Sound Relations	Cardoso-Martin et al. (2011) Experiment 1	Yes	Brazil	Academic	Brazil	Letter sound learning; decoding	32 children/ 20 children	RCT	Phonological training for children about the shapes and names of letters	ANOVA

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10	Letter Names and Phonological Awareness Help Children to Learn Letter–Sound Relations	Cardoso-Martin et al. (2011) Experiment 2	Yes	Brazil	Academic	Brazil	Letter sound learning; decoding	10 children/ 10 children	RCT	Phonological training for children about the shapes and names of letters with extra emphasis on beginning and middle letter sounds	ANOVA
11	Treatment of <i>Trichuris trichiura</i> Infections Improves Growth, Spelling Scores and School Attendance in Some Children	Simeon et al. (1995)	Yes	United States	Academic	Jamaica	Spelling; reading	407 children	RCT	Deworming program	OLS regression analysis
12	Do In-School Feeding Programs Have Impact on Academic Performance and Dropouts? The Case of Public Argentine Schools	Adrogué & Orlicki (2013)	Yes	United States	Ministry of Education	Argentina	Language test score	4,466 schools	Difference-in-difference	School feeding program	OLS regression analysis

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13	Technology and Child Development: Evidence from the One Laptop Per Child Program	Cristia et al. (2012)	Yes	Peru	Ministry of Education	Peru	Language test scores	4,111 students	RCT	Provision of one laptop per child	OLS regression analysis
14	Nutrition and Education: A Randomized Trial of the Effects of Breakfast in Rural Primary School Children	Powell et al. (1998)	Yes	United States	Academic	Jamaica	Spelling; reading	814 students	RCT	Provision of nutritious breakfast by schools	OLS regression analysis
15	Learning with the XO's: The Impact of the Ceibal Plan	Ferrando et al. (2011)	Yes	Uruguay	Ministry of Education	Uruguay	Reading	1,365 students	Difference-in-difference	Provision of one laptop per child	Propensity score matching
16	Guyana's Hinterland Community-Based School Feeding Programme	Ismail et al. (2012)	Yes	United States	Ministry of Education	Guyana	English language test scores; reading test scores	1,038 treatment and 1,938 control students	Quasi-experimental	Community-based school feeding program	Propensity score matching
17	The Contribution of Quality Early Childhood Education and Its Impacts on the Beginning of Fundamental Education	Campos et al. (2011)	Yes	Brazil	Ministry of Education	Brazil	National literacy exam test scores	605 treatment and 157 comparison students	Nonexperimental	Preschool	Hierarchical regression analysis

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18	School Improvement Plans and Student Learning in Jamaica	Lockheed et al. (2006)	Yes	United States	Ministry of Education	Jamaica	National literacy and language school-level performance data	71 treatment and 67 comparison schools	Quasi-experimental	The program provided support to schools on the basis of needs identified through the preparation of a School Development Plan	Propensity score matching
19	Opening the Black Box: Intervention Fidelity in a Randomized Trial of a Preschool Teacher Professional Development Program	Mendive et al. (2016)	Yes	Chile	Ministry of Education	Chile	Child language and literacy	1,033 treatment students and 843 control students	RCT	Teacher training program	OLS regression analysis
20	Effects of Story Reading on Language	Vivas (1996) Experiment 1	Yes	Venezuela	Academia	Venezuela	Language comprehension and expressive language	72 treatment and 84 control students	RCT	Systematic, story-reading-aloud program at school	ANOVA
21	Effects of Story Reading on Language	Vivas (1996) Experiment 2	Yes	Venezuela	Academia	Venezuela	Language comprehension and expressive language	72 treatment students and 66 control students	RCT	Systematic, story-reading-aloud program at home	ANOVA

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22	The Use and Misuse of Computers in Education: Evidence from a Randomized Experiment in Colombia	Osorio & Linden (2009)	Yes	United States	Ministry of Communication	Colombia	Language test scores	4,327 treatment students and 3,889 control students	RCT	Provision of computers for instruction	OLS regression analysis
23	Experimental Impacts of a Teacher Professional Development Program in Chile on Preschool Classroom Quality and Child Outcomes	Yoshikawa et al. (2015)	Yes	United States	Ministry of Education	Chile	Child language and literacy	1,033 treatment students and 843 control students	RCT	Teacher training program	OLS regression analysis
24	Home Computers and Child Outcomes: Short-Term Impacts from a Randomized Experiment in Peru	Beuermann et al. (2015)	Yes	United States	Ministry of Education	Peru	Time spent reading language test scores	Total sample of 2,817	Difference-in-difference	Provision of educational laptop	OLS regression analysis
25	Read-Alouds in Calca, Peru: A Bilingual Indigenous Context	Neugebauer & Currie-Rubin (2009)	Yes	United States	Academia	Peru	Vocabulary acquisition Reading comprehension	29 treatment students and 26 control students in two treatment classrooms and two control classrooms	RCT	Read-aloud program	OLS regression analysis

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26	Experimental Impacts of a Preschool Intervention in Chile on Children's Language Outcomes: Moderation by Student Absenteeism	Arbour et al. (2016)	No	United States	Ministry of Education	Chile	Vocabulary acquisition; letter-word identification; emergent writing; passage comprehension	1,861 students	RCT	Teacher training program	Tobit model
27	Language complexity during read-alouds and kindergartners' vocabulary and symbolic understanding	Mascareno et al. (2016)	No	The Netherlands	Academic	Chile	Picture vocabulary; passage comprehension	265 students	RCT	Specific teacher practices inside and outside the classroom	Hierarchical linear model

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28	Experimental Impacts of a Teacher Professional Development Program in Early Childhood on Explicit Vocabulary Instruction Across the Curriculum	Bowne et al. (2016)	No	United States	Ministry of Education	Chile	Time spent by teachers on literacy instruction; time spent by teachers on other-topic instruction; time spent by teachers on vocabulary support during literacy instruction; time spent by teachers on vocabulary support during other-topic instruction	46 teachers	RCT	Teacher training program	Hierarchical linear model
29	Relationships Between Teachers' Language and Explicit Vocabulary Instruction and Children's Vocabulary Growth in Kindergarten	Bowne (2014)	No	United States	Ministry of Education	Chile	Children's word density; children's word diversity; vocabulary at the end of prekindergarten; vocabulary at the end of kindergarten	846	RCT	Specific teacher practices inside and outside the classroom	Hierarchical linear model

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30	La Comprensión Lectora: Una Evaluación Clínica y Cuantitativa	Viramontes et al. (2016)	No	Mexico	Academic	Mexico	Reading comprehension; reading speed; effective reading	41	RCT	Specific teacher practices inside and outside the classroom	T test
31	Matching Funds as Targeting: A Way to Give to Those That Need Funding the Most	Bando (2010)	Yes	United States	Ministry of Education	Mexico	Language Test Score	114,772	OLS regression analysis with school fixed effects	Matching grant program	OLS regression analysis