

- Statistisches Bundesamt. (2016). *Bildung in Deutschland 2016: Ein indikatorengestützter Bericht mit einer Analyse zu Bildung und Migration* [Education in Germany 2016: An indicator-based report with an analysis on education and migration]. Retrieved from https://www.destatis.de/DE/Publikationen/Thematisch/BildungForschungKultur/Bildungsstand/BildungDeutschland5210001169004.pdf?__blob=publicationFile
- Storch, S. A., & Whitehurst, G. J. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology*, 38(6), 934–947. doi:10.1037/0012-1649.38.6.934
- Thordardottir, E. (2010). Towards evidence-based practice in language intervention for bilingual children. *Journal of Communication Disorders*, 43(6), 523–537. doi:10.1016/j.jcomdis.2010.06.001
- *Thordardottir, E., Cloutier, G., Ménard, S., Pelland-Blais, E., & Rvachew, S. (2015). Monolingual or bilingual intervention for primary language impairment? A randomized control trial. *Journal of Speech, Language, and Hearing Research*, 58(2), 287–300. doi:10.1044/2014_JSLHR-L-13-0277
- Thordardottir, E., Weismer, S. E., & Smith, M. E. (1997). Vocabulary learning in bilingual and monolingual clinical intervention. *Child Language Teaching and Therapy*, 13(3), 215–227. doi:10.1177/026565909701300301
- *Tsybina, I., & Eriks-Brophy, A. (2010). Bilingual dialogic book-reading intervention for preschoolers with slow expressive vocabulary development. *Journal of Communication Disorders*, 43(6), 538–556. doi:10.1016/j.jcomdis.2010.05.006
- United Nations High Commissioner for Refugees. (2015). *Syria regional refugee response: Inter-agency information sharing portal*. Retrieved from <http://data.unhcr.org/syrianrefugees/regional.php>
- U.S. Census Bureau. (2010). *Language use in the United States: 2007*. Retrieved from <http://www.census.gov/prod/2010pubs/acs-12.pdf>
- U.S. Department of Health and Human Services. (2013). *Report to Congress on dual language learners in Head Start and Early Head Start programs*. Retrieved from http://www.acf.hhs.gov/sites/default/files/opre/report_to_congress.pdf
- Warren, S. F., Fey, M. E., & Yoder, P. J. (2007). Differential treatment intensity research: A missing link to creating optimally effective communication interventions. *Mental Retardation and Developmental Disabilities Research Reviews*, 13(1), 70–77. doi:10.1002/mrdd.20139

Table 1. Systematic Review Search Terms

	Bilingual intervention	DLL
Keywords utilized	bilingual intervention language, bilingual intervention vocabulary, home-language intervention	bilingual*, preschool child*, dual language learn*, DLL, Spanish speak*, home language, English language learn*

Table 2. Summary of Articles Selected for Review

Study	Pham et al. (2011)	Thordardottir et al. (2015)	Tsybina & Eriks-Brophy (2010)
Participants	<i>N</i> = 1 boy Age: 52 months Language profile: moderate to severe language delay (only descriptive language profile provided)	<i>N</i> = 29 (3 girls) Age: 45–68 months (<i>M</i> = 59.56 months) Language profile: primary language impairment (previous clinical identification at or below -1.5 <i>SD</i> on a French language test)	<i>N</i> = 12 (2 girls) Age: 22–42 months (<i>M</i> = 27.8 months) Language profile: at risk for vocabulary and language difficulties (parent concern; small conceptual vocabularies as established by parent report)
Linguistic/cultural background	Home language (L1): Vietnamese Majority language (L2): English Location: Midwest USA	Home languages (L1): Arabic, Bangla, Bengali, Chinese, Dutch, English, Japanese, Kabyl, Punjabi/Urdu, Russian, Sinhalese, Spanish, Tamil Majority language (L2): French Location: Western Canada	Home language (L1): Spanish (Middle and South American) Majority language (L2): English Location: urban area, not specified
Intervention details	Treatment: receptive vocabulary (8 adjectives), bilingual (BI) approach vs. English-only (EO) Control: not applicable Location: quiet corner of the special-education classroom Intensity: frequency and duration: 12 sessions in 3 weeks (2 days/week, 2 times/day); dose: 10 min; duration: 3 weeks; total dosage: approx. 120 min	Treatment: individual language intervention (focused stimulation approach): bilingual intervention (<i>n</i> = 9) Control: L2 monolingual intervention only (<i>n</i> = 11) or no treatment (<i>n</i> = 9) Location: clinical setting, not specified Intensity: frequency and duration: 16 weekly sessions; dosage: 20 min allocated for vocabulary intervention; total dosage (vocabulary): approx. 320 min	Treatment: dialogic book-reading in Spanish and English (<i>n</i> = 6) Control: no treatment (delayed treatment, <i>n</i> = 6) Location: children's homes Intensity: frequency and duration: 30 sessions over 6 weeks; dosage: 15-min sessions in each language; total dosage: approx. 450 min
Implementation of home language	Interventionist: monolingual (English) special-education teacher using a PowerPoint presentation to show L1 and L2 pictures and prerecorded audio files	Interventionists: monolingual (French) SLPs providing instructions, demonstration, and modeling for parents within sessions; parents were asked to model the target words in their language and to respond to their child's home-language utterances	Interventionists: monolingual (English) SLP (dialogic book-reading) and mothers (Spanish dialogic book-reading); mothers received ~30 min of training and a Spanish language handout on dialogic book-reading; the SLP provided modeling in English and monitored practice in Spanish including weekly follow-up observations and feedback
Vocabulary outcomes	L1 & L2: receptive vocabulary probes of words unknown in both languages at baseline: both BI approach and EO increased L1 and L2 receptive vocabulary	L1: Pre-/post-assessment: language sampling: no group differences in mean length of utterance in words (MLUw) L2: Pre-/post-assessments: receptive and expressive vocabulary probes (informal): significant treatment effect for monolingual and bilingual treatment conditions; formal language tests: no group differences; language sampling: no group differences in MLUw; 8-week follow-up (receptive and productive vocabulary only): maintenance of performance	L1 & L2: expressive vocabulary probes at posttest: children in the intervention group produced more target words in each language; 6-week follow-up: maintenance of performance; overall vocabulary gains did not differ between intervention and control group
Design	Single-subject, experimental	Randomized controlled trial	Quasiexperimental/nonrandomized controlled trial

Table 3. Critical Appraisal of Quality for Included Studies

Parameter	Criterion
Comparison control group	Did the study include a control group and one or more treatment group(s)?
Random assignment	Were the participants randomly assigned into the treatment and control group(s)?
Participants	Did the authors provide information about the age, gender, race, ethnicity, socioeconomic status, language input, speech and language abilities, and/or cognitive status of the children who participated in the study?
Initial group similarity	Did statistical analysis demonstrate that the groups were the same in all important ways except for the treatment under investigation?
Intervention description	Was the intervention described in sufficient detail to support replication?
Fidelity of intervention	Was the fidelity of implementation of the intervention adequately reported and were acceptable levels (> 80%) achieved?
Blinding	Was blinding used to ensure that the individuals who conducted the assessments and analyzed the data did not know which groups the participants were assigned to?
Nuisance variables	Were nuisance variables that could have seriously distorted the findings adequately addressed?
Measures	Were the formal and informal measures used to assess the treatment outcomes valid and reliable?
Statistical significance	Did the authors report <i>p</i> values for all dependent variables?
Practical significance	Did the authors report <i>Eta squared</i> values or standardized <i>d</i> values for all dependent variables? If not, could they be calculated from the data that were provided in the article?

Table 4. Summary of Quality Indicators for Included Studies

	CG	RA	P	SG	ID	FOI	BL	NV	M	SS	PS	Number of quality indicators (max. = 11)
Pham et al. (2011)	—	NA	✓	NA	✓	✓	NA	—	✓	NA	—	4
Thordardottir et al. (2015)	✓	✓	✓	—	✓	✓	✓	✓	✓	✓	✓	10
Tsybina & Eriks-Brophy (2010)	✓	—	✓	—	✓	—	—	—	—	✓	✓	5

Note. A check mark indicates that evidence was present. A dash indicates that evidence was not present. CG = comparison control group; RA = random assignment; P = participants; SG = similar groups; ID = intervention description; FOI = fidelity of implementation reported; BL = blinding; NV = nuisance variable addressed; M = measures used; SS = statistical significance; PS = practical significance; NA = not applicable because of the study's single-subject design.