

Dale Walker, Samantha Sepulveda, Ilene Schwartz, Erika Hoff, Meredith L. Rowe, Philip S. Dale, Carla Peterson, Karen Diamond, Kathryn Bigelow, Susan C. Levine, Susan Goldin-Meadow & Barbara H. Wasik
 Work Group on Interventions in Child Care and Early Education, Bridging the Word Gap Research Network

Integrated Abstract

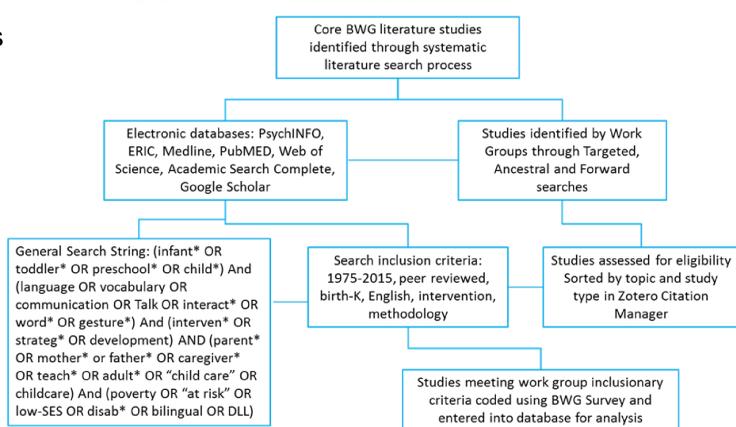
The importance of early experience and disparities in the quality and quantity of language input disproportionately experienced by some children growing up in poverty was documented by Hart and Risley (1992;1995). Differences in early language exposure represented an estimated gap of over 30-million words that some children experienced and predicted later deficits in school performance (Walker, Greenwood, Hart & Carta, 1994). Lower language trajectories may set in motion chronic delays in reading and school performance - with profound social and economic costs (Shonkoff & Phillips, 2000).

To help ensure that all children experience supports for language learning, there is a need to understand the state of intervention research. Determining the factors associated with positive outcomes for children and adults can help to inform prevention and intervention efforts addressing the word gap.

Findings from a systematic survey of the literature examining the who, what, where and how well, for language interventions delivered in child care/early intervention are reported. In this poster, an overview of the general methods used for the syntheses across all work groups is provided. Findings from the synthesis examining interventions delivered by caregivers in child care and early intervention programs are highlighted.

General Methods

To identify studies reviewed by each BWG Network work group, a core database of intervention studies was created. The systematic literature search process used is displayed.

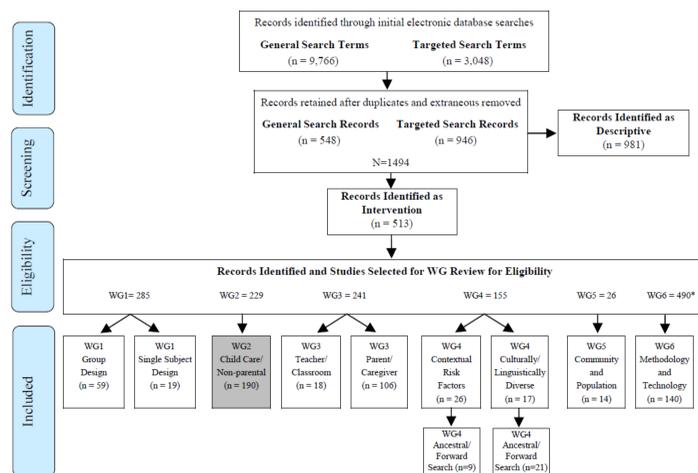


A citation manager software program (Zotero) was used to manage studies. The program interfaced with electronic databases to download the full citation of selected articles along with a PDF copy of the article for review purposes. Studies were organized into subfolders and color tagged indicating relevance per BWG work group focus (See sample).

Sample Zotero Database

Title	Creator
Working with pre-school practitioners to improve interactions	Ahsam et al.
An evaluation of curriculum, setting, and mentoring on the ...	Assel et al.
Increasing social engagement in young children with autism...	Bellini et al.
Effects of a two-generation preschool programme on recep...	Benzie et al.
Two-generation preschool programme: immediate and 7-year...	Benzie et al.
Aboriginal Children and Their Caregivers Living with Low Inco...	Benzie et al.
Comparison of Behavioural and Natural Play Interventions f...	Bernard-Opitz

Study Identification, Selection, and Eligibility



A literature search identification and inclusionary process was used to determine studies that received a full review. An online coding survey with 110 questions was developed using Qualtrics to extract information to address the research questions. Certified coders completed an analysis of each study selected. Interrater coding reliability was conducted for 20% of all studies. For this synthesis for child care/early intervention, 24% of selected studies were coded for reliability. Interrater reliability agreement was 93%.

Research Questions

- 1) What are the characteristics of children who have received interventions?
 - a) To what extent have studies included children who are from diverse socioeconomic, cultural, ethnic and linguistic backgrounds?
- 2) What are the characteristics of adults delivering interventions to young children in child care, early learning/intervention programs?
- 3) What interventions or strategies to enhance the communication and language development of children have been analyzed?
- 4) What is the quality of the research evidence?
 - a) To what extent is fidelity or dosage measured?
 - b) How are outcomes for children and adults measured?
 - c) What evidence is used to document effectiveness?
- 5) What strengths and gaps exist in the research?
- 6) What research topics emerge as priorities for future research?



Results

The inclusionary criteria for an intervention study addressing communication or language was met for 190 studies. Thirty-five percent of the studies reported including children from low-SES/poverty samples. Highlighted results suggest:

Who and Where:

- 37% of studies included 10 or fewer; 8% reported over 200 child participants.
- Attrition more likely in low-SES/poverty studies ($p < 0.001$).
- 75% of studies included preschool-aged children (36-59 mos.); 27% included toddlers (12-35 mos.); 4% included Infants (0-11 mos.) (low-SES/poverty, $p < 0.001$).
- 54% of studies included Black children/41% Hispanic, (low-SES/poverty, $p = 0.001$).
- 63% included children with disabilities (non-poverty studies, $p < 0.001$).
- 26% of studies included children who were DLL (low-SES/poverty, $p < 0.001$).
- 41% of interventions delivered by researchers; 39% delivered by teachers.
- 71% of studies in child care/early learning (low-SES/poverty, $p < 0.001$).

What:

- 23% of studies focused on teacher-child dyads.
- 41% of the studies reported using workshop format (low-SES/poverty, $p < 0.05$).
- 28% reported using coaching/feedback.
- 46% of the studies reported measuring intervention implementation fidelity.
- 49% used standardized norm-referenced tests (low-SES/poverty, $p < 0.001$).
- 44% Author developed; 36% Observation measures (non-poverty; $p < 0.01$).
- 86% Intervention packages delivered (low-SES/poverty, $p < 0.05$).
- 15% Shared book or Dialogic Reading (low-SES/poverty, $p < 0.001$).
- 10% Targeted Vocabulary (low-SES/poverty, $p < 0.01$). 12% Milieu/Responsive.
- 46% of the studies measured Receptive Language (low-SES/poverty, $p < 0.001$).
- 34% Social Communication (non-poverty, $p < 0.001$).

How:

- 34% of the studies used a randomized design (low-SES/poverty, $p < 0.001$).
- 32% of the studies reported effect sizes (low-SES/poverty, $p < 0.001$).
- 31% single-subject design (non-poverty).
- 34% of the single-subject studies evidence was reported as strong.

Summary and Implications

Most studies of specific interventions and strategies have been small, conducted primarily with preschool-aged children, and with children who have special needs.

Studies analyzing interventions for communication and language report including children from low-SES/poverty backgrounds less often.

Studies demonstrating intervention feasibility and effects in community settings with larger numbers of children from poverty backgrounds and for diverse learners are needed. Stronger methods, assessment, and design are recommended.

Acknowledgements

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