

What are we Talking About? Distilling Research Findings to Bridge the Word Gap through Practice, Policy, and Research Briefs

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Introduction

- Increasing dissemination of scientific discovery by researchers is of paramount importance to make a difference for young children and families.
- How researchers can effectively disseminate scientific findings to have an impact on the people who use the interventions is needed.

Purpose

- The Bridging the Word Gap Research Network (BWGRN) conducted seven research syntheses to identify strengths and gaps in the language intervention research addressing the word gap.
- These systematic reviews were published in a special issue of *Early Childhood Research Quarterly* (Walker & Carta, 2020).
- Dissemination of scientific discovery by researchers is of paramount importance if we are to make a difference for young children and families.
- Limitations of traditional research formats for reaching those who could benefit most from our findings led us to find innovative ways to disseminate our research.
- We created briefs in a form that facilitates understanding of research findings by practitioners and policymakers.
- Our purpose is to describe the innovative process used and illustrate the research, practice, and policy briefs developed for disseminating research findings broadly.

Method

- To translate this research, we developed practitioner, policy and research briefs by distilling key messages and tailoring the information about language interventions for early childhood educators and interventionists, pediatricians, nurses, and public health care professionals, home visitors, policymakers, community members and researchers.
- Briefs were developed through an iterative process with the design team, researchers, and feedback from the target audience of the brief.
- Two-page briefs were created with the targeted messages.
- A strategic plan was used to disseminate the briefs.
- Social media (Facebook (Meta), Instagram, twitter), email, and posting to the BWG website.
- Key influencers in each field were identified and partnered with the BWGRN to expand the reach of each brief.

HOW COMMUNITY SECTORS CAN HELP BRIDGE THE WORD GAP
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WHAT IS THE WORD GAP?
Research shows the quality and quantity of words and interactions to which young children are exposed in the first few years of life can promote their language development. Some children from low-income families are exposed to fewer words and less frequent interactions with caring adults than children from higher income families. This disparity in children's early language environments is called the "Word Gap." Much research shows that the Word Gap can result in children having delayed language, challenges in learning to read, and persisting academic difficulties.

WHAT PARENTS AND CAREGIVERS NEED TO KNOW:

- The first three years of life are the most important for children's language development.
- Children's early language experiences provide the foundation for school readiness and later reading skills.
- The rich and nurturing language interactions children experience impact their brain development.
- Parents have the power to create rich language experiences that can foster their children's school success.

HOW HEALTHCARE PROFESSIONALS CAN HELP BRIDGE THE WORD GAP
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CHILDREN'S EXPERIENCES IN THE FIRST YEARS LAST A LIFETIME

Pediatric Health Care providers play a critical role in empowering parents with knowledge about Language Nutrition.

Language Nutrition refers to the way children's language interactions with parents and caregivers support their brain development, their social-emotional well-being and their capacity to learn.

As a health care provider, you are in a key position to help parents learn why talking to their child is important and how to promote Language Nutrition during everyday activities.

Just as you help parents understand the importance of nutrition for promoting children's health, you can help parents understand how Language Nutrition will nurture their children's brain development and build a foundation for later learning.

BRIDGING THE WORD GAP RESEARCH ROUNDUP
A SYSTEMATIC SURVEY OF LANGUAGE INTERVENTIONS IMPLEMENTED BY EARLY CHILDHOOD EDUCATORS, EARLY INTERVENTIONISTS, & CHILD CARE PROVIDERS

WHAT DID YOU STUDY?
We conducted a systematic survey of studies investigating the effects of language interventions implemented by early childhood educators, early interventionists, and child care providers. Our goal was to evaluate the strengths and weaknesses in the literature to help inform future research.

HOW DID YOU STUDY IT AND WHAT DID YOU FIND?
Within the repository of language intervention studies identified by the Bridging the Word Gap Research Network (Carta, Greenwood, & Walker, 2016), we located 513 language intervention studies published between 1975 and 2015. Within that group of studies, we focused on the 193 studies targeting interventions delivered in child care and early education settings by early childhood educators, early interventionists, child care providers, and non-parental adults.

WHAT DID YOU FIND?
Question 1: Who received the interventions and what were their characteristics?

Answer:

- The majority of studies (75%) were carried out with preschool-aged children (aged 3-5 years).
- Much smaller percentages of studies included infants (only 4%) or toddlers (just 2%).
- Forty-six percent of studies included kindergarten (aged 5-6 years).
- Only 33% of the intervention studies included children from low socioeconomic status.
- Only 56% of studies reported on children's home language. From these studies, 54% indicated Spanish as their home language.

Question 2: Who were the interventionists and how were they trained?

Answer:

- In 8% of the studies, teachers early childhood educators, or early interventionists provided, or child care providers, were the implementers of the language intervention.
- Interventionists were most often trained in group workshops (50% of studies), with coaching and performance feedback (38%), and with modeling (25%).

HOW POLICYMAKERS CAN HELP BRIDGE THE WORD GAP
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ONE-THIRD OF CHILDREN IN THE U.S. ARE BILINGUAL

- Spanish is the most common home language spoken by bilingual children, followed by Chinese, Arabic, and Vietnamese.
- Bilingual children live in all areas of the country and not just in urban settings.

FACTS ABOUT BILINGUALISM

There is strong research evidence that:

- Children are not confused by learning two or more languages.
- Speaking a language other than English does not harm English language development.
- Bilingualism results in academic, cognitive, social, and economic benefits.

BILINGUAL CHILDREN NEED INSTRUCTION IN BOTH LANGUAGES

- Children use their knowledge of their home language to learn English.
- Teaching bilingual children in English only does not help them learn English faster.
- Bilingual instruction helps children learn English while maintaining their home language.
- Maintaining the home language allows children to have stronger connections with their families, better self-esteem, and greater pride in their culture.

HOW HOME VISITORS CAN HELP BRIDGE THE WORD GAP
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PARENTS AND OTHER CAREGIVERS PLAY A CRITICAL ROLE IN THEIR CHILDREN'S DEVELOPMENT:

- Parents' and caregivers' interactions with their children in the first 3 years of life promote children's brain development.
- Parents' and caregivers' interactions with their young children predict their children's future academic success.

HOME VISITORS CAN PROMOTE CHILDREN'S FUTURE SUCCESS:

- Home visitors play an important role in teaching parents and caregivers how they can promote their children's language during daily routines.
- Some parents and caregivers are not sure they have enough time in their day to "be their children's first teachers."
- Many parents are empowered to learn that their everyday interactions with their infants and toddlers can affect their children's school readiness.
- Research points to three specific strategies as most effective for training parents and caregivers in "brain-building" language interactions. (see next page)

What is the research guiding this brief?
This brief is based on a research synthesis conducted by Bui and colleagues (2020) published in *Early Childhood Research Quarterly*. The synthesis included 313 research studies evaluating effective methods of training caregivers and parents to support the language development of children between 0-5 years old.

REFERENCE: Bui, C. H., Bushnell, J., Brown, J. A., Rameau, M. K., Lora, C. M., Winkler, K. S., & Goldstein, H. (2020). Language interventions taught to caregivers in homes and classrooms: A review of intervention and implementation fidelity. *Early Childhood Research Quarterly*, 50, 140-159.

FUNDING: This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), under cooperative agreement U54MD027762, Bridging the Word Gap (BWG) Research Network. The information content and/or conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsement be inferred by HRSA, HHS, or the U.S. Government.

BRIDGING THE WORD GAP RESEARCH ROUNDUP
A SYSTEMATIC REVIEW OF LANGUAGE INTERVENTION RESEARCH FOR CHILDREN FROM LOW-INCOME BACKGROUNDS: A WORD GAP PREVENTION PERSPECTIVE

WHAT DID YOU STUDY?

- We conducted a systematic review of language intervention studies conducted with young children from low-income backgrounds likely to experience the Word Gap. From a prevention perspective, we evaluated the strength of evidence supporting interventions conducted with this population as well as needed features for scalability and for replication by communities to produce population-level outcomes. We evaluated studies relative to the standards established by the Society for Prevention Science (see Gottfredson et al., 2015) that include evidence of ecological validity, rigor/trustworthiness, and readiness for scale-up.
- Ecological validity referred to evidence from studies conducted in authentic settings by authentic implementers targeting children from low-income families. Trustworthiness included evidence from studies incorporating strong controls for internal and external validity, as well as measurement of the necessary and sufficient intervention conditions implemented.
- Readiness for scale-up included evidence that the intervention has the necessary infrastructure to support its implementation, and that it has the tools needed for monitoring its implementation fidelity.

HOW DID YOU STUDY IT?
Within the repository of language intervention studies identified by the Bridging the Word Gap Research Network (Carta, Greenwood, & Walker, 2016), we located 513 language intervention studies published between 1975 and 2015. Within that group of studies, only 27% (140) focused on children and families from low-income backgrounds meeting our inclusion criteria by specifying research design quality indicators, intervention features, and participant characteristics.

WHAT DID YOU FIND?

1. Were the interventions ecologically valid and carried out in authentic implementers and in real-life settings?

- There was relatively weak evidence of ecological validity.
- Only 22% of studies included participants from underserved groups.
- The majority of interventions were implemented by research staff and not parents, early educators, or home visitors.
- Most interventions were carried out in child care (57%) or home settings (44%); few took place in community settings like laundromats or grocery stores.

2. Were the intervention studies trustworthy?

- Trustworthiness of studies varied by the type of research design.
- In 58% of studies, researchers employed the gold standard, randomized control trial to rule out selection bias. 29% of studies researchers employed quasi-experimental designs and more than half of these did not control for selection bias and in 15% of studies, researchers employed single-case designs and met most of the design standards.

Results

- A weekly campaign for each brief included three postings of information which was released to over 1000 organizations and entities.
- The briefs have led to 4,000 unique visitors to our BWG website.
- The campaign brought in 91 new followers on Instagram and 113 engagements (new account). On Facebook(Meta) the campaign reached 1,528 users with 129 user engagements (click, like, share). On Twitter the campaign reached 5,890 users and produced 1,657 profile visits.

The methods described have implications for early childhood researchers for the dissemination of research findings using formats that can be accessible to practitioners and policymakers, community, and business leaders.



Discussion

- To move the needle on closing the word gap, what are additional ways to effectively communicate about, and disseminate, research findings?
- How can early childhood researchers disseminate research to targeted stakeholders to ensure that our innovations are adopted and scaled?
- What are the mechanisms available and needed to be developed to serve as repositories for innovative dissemination?

Acknowledgments

This work is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under UA6MC27762 & U6DMC42197: Maternal and Child Health Bridging the Word Gap Research Network. This information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS, or the U.S. Government. Additional support was received through the Kansas Intellectual and Developmental Disabilities Research Center (U54 HD090216). We acknowledge the contributions from the BWG Leadership and Network members to this work. This poster was presented at the Conference for Research Innovations in Early Intervention (CRIIE), Mission Bay, San Diego, CA. February 10 - 12, 2022.

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Citation: Walker, D., & Carta, J. J. (2020). Intervention research to improve language-learning opportunities and address the inequities of the word gap. *Early Childhood Research Quarterly*, Special Issue, 50(1), 1-5.

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