

National Early Literacy Panel

Synthesizing the Scientific Research on Development of Early Literacy in Young Children



The National Center for Family Literacy (NCFL), with funding from the National Institute for Literacy (NIFL), identified and convened the National Early Literacy Panel (NELP) to conduct a synthesis of scientific research on the development of early literacy in young children. The objective for convening the NELP was to identify interventions and practices that promote positive outcomes in literacy for preschool children. The panel formulated four research questions.

- What are the skills and abilities of young children ages birth to five years that predict later reading outcomes?
- What programs and interventions contribute to or inhibit gains in children's skills and abilities that are linked to later reading outcomes?
- What environments and settings contribute to or inhibit gains in children's skills and abilities that are linked to later reading outcomes?
- What child characteristics contribute to or inhibit gains in children's skills and abilities that are linked to later reading outcomes?

The results reported here are preliminary. Final results will be available in a report to be released at a later date.

Identifying Early Literacy Predictors

Because it was unlikely that there would be interventions that directly targeted conventional literacy skills (decoding, reading comprehension, spelling) prior to formal instruction in kindergarten and beyond, the first research question was primary in identifying the preschool and kindergarten predictors of conventional literacy skills. The NELP identified, coded and analyzed 300 peer-reviewed research articles to identify the predictors.

Overall, across the three different outcome domains for conventional literacy, a consistent set of variables with moderate to strong relationships emerged. Based on these findings, there was strong evidence for the importance of alphabet knowledge, phonological awareness, rapid naming tasks involving either naming of letters and digits or naming of objects and colors, writing/writing name, and phonological short-term memory as predictors of later reading and writing skills. Less consistent evidence existed for the importance of global oral language skills and concepts about print as predictors of later reading and writing skills, mainly because these variables did not always continue to predict literacy outcomes once other variables like alphabet knowledge or phonological awareness were controlled. There was weak evidence for the importance of visual perceptual skills as a predictor of later reading

and writing skills, because a moderate relationship emerged only for one conventional literacy outcome and because it did not continue to predict literacy outcomes once other variables like alphabet knowledge or phonological awareness were controlled.

Secondary analyses revealed that the important predictors continued to have moderate to strong relationships with conventional literacy outcomes regardless of age at which the predictor was assessed or the age at which the outcome was assessed.

Identifying Effective Interventions

The NELP examined a total of 191 articles across five categories of interventions to determine the impact of various approaches on the identified early literacy predictors and conventional literacy skills. The five categories were:

- Alphabetics and making sense of print
- Reading to and sharing books with young children
- Parent and home programs for improving young children's literacy
- Preschool and kindergarten programs
- Language enhancement

All five categories of interventions had statistically significant positive effects for at least some outcomes, meaning that each approach benefited young children's literacy learning. Of course, not every category had equal numbers of studies or at times enough studies to determine effects on particular outcomes, and the impacts of various approaches were not measured on all possible outcomes. Nonetheless, it is apparent that explicit attempts to build alphabetic awareness and oral language, to share books with young children, and to use home, preschool, and kindergarten interventions all can be valuable paths to at least some literacy and language outcomes.

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For the category involving alphabetics and making sense of print, the interventions had large impacts on phonological awareness and writing, moderate impacts on rapid automatized naming, reading and spelling, and small impacts on oral language, alphabet knowledge, concepts about print, decoding and memory. There were substantial numbers of studies for several of these variables (phonological awareness, oral language, alphabet knowledge, decoding, reading and spelling) suggesting that these findings are likely to be reliable.

Reading to young children was found to have a moderate impact on oral language and print awareness, but it did not have a significant influence on phonological awareness, alphabet knowledge, concepts about print, or readiness.

Sufficient numbers of studies of parent and home programs resulted in a small to moderate impact on only one outcome—children's oral language development.

Preschool and kindergarten programs were found to have substantial impacts on readiness and small impacts on reading achievement itself.

Finally, direct efforts to teach oral language were successful. Oral language instruction consistently improved children's oral language, and based on many fewer studies, it also was found to improve children's phonological awareness.

Further Analyses

The NELP is currently conducting further analyses on the interventions to gauge more detailed effects.

