

**Réseau canadien de recherche  
sur le langage et l'alphabétisation**

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**CANADIAN LANGUAGE &  
LITERACY RESEARCH NETWORK**

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# What would an evidence-based Canadian National Strategy for Early Literacy look like?

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# Levels of Evidence

- Randomized Control Trials (RCT)
  - Only design that adequately controls for all unmeasured variables that can affect outcome
- Systematic Reviews
  - Form of review with explicit criteria for the inclusion/exclusion of studies collated through exhaustive searches of the databases
  - “*gold standard*” for building evidence-based practice and government policy
- Meta-Analyses
  - Statistics applied to explore whether effects reported in individual studies are consistent across all studies



# Phonics

- Combining phonics and phonological awareness effective when combined with letter sound knowledge (Bus and Van IJzendoorn, 1999 )
  - But joint book sharing with preschool children produces an effect size at least as large as early phonic interventions
- Explicitly teaching 1-2 phonological operations over 5-15 hours more effective than incidental teaching (Ehri et al., 2001)



# Phonics Continued

- Torgerson et al., (2006) concluded:
  - evidence base for inclusion of phonics programs in early reading instruction is moderately strong
  - evidence base available on synthetic over analytic phonics techniques is currently weak
  - not sufficient evidence to draw policy conclusions
  - no clear evidence *at all* that any form of phonics should be used for the teaching of spelling
  - no strong evidence on phonics beyond Kindergarten/Grades 1-2



# What do we really know about effective phonics practices?

- reasonably strong evidence basis to support inclusion of phonics in early literacy to aid word reading from at least 6 systematic meta-analytic reviews
  - Some (less reliable) evidence to support systematic teaching of synthetic phonics over other approaches to phonics
  - Inconsistent evidence of the role of phonics in spelling
  - Little reliable evidence of the optimal **amount** of phonics instruction
  - Phonic approaches help typically developing and delayed reader groups



# Research Supported Practice

- Some evidence suggests that *preventative early intervention* better than remedial for delayed or at-risk readers
- Reliable evidence from meta-analytic review that language rich home and school environments significantly impact early literacy
  - E.g., shared book reading, meaningful language, active learning, naturalistic play
  - Suggests school and preschool initiatives should be linked!



# What do we know little about?

- Evidence base for **reading comprehension** and **fluency** is substantially weaker
  - Studies report modest to no effect sizes
  - NRP suggests use of 8 meta-cognitive strategies for reading comprehension most effective
  - Group work in mixed ability contexts appears most effective
- Modest (and disputed) evidence for **guided-reading** suggests caution towards this method
  - Children should read widely and enjoy reading for multiple purposes
- Need for good quality research in these areas



# What do we know little about?

- Limited good evidence on effectiveness of **information and communication technology** for reading and spelling
  - Current evidence suggests ICT does not help
- Very modest evidence that effective classrooms are characterised by:
  - Atmosphere, instructional support, classroom management and student engagement
- Modest reliable evidence of effective strategies for extended writing and composition
  - Group work, explorations of genre and learning of explicit strategies for composition



# Canadian Implications

- *Less is known about the effectiveness of large-scale Canadian programs because Canada's education and early child development sectors are not yet committed to rigorous, systematic evaluation protocols, even in the critically important area of literacy skill development (Jamieson, 2006 in Savage, 2008, p. 36).*



# Funding!

- “...need for a clear commitment to funding and supporting the publication and dissemination of the ‘gold-standard’ RCT studies. Such studies need to be large to be reliable and are thus relatively expensive to run and often exceed the budgets currently allocated to single-research studies currently in Canada” (*Savage, 2008, p. 38*)



# Some facts on funding

- A 1% increase in literacy is associated with an \$18.4 billion advance in GDP (Statistics Canada 2004).
- We know there is enormous variation in literacy out there in the same regions over time (e.g. Fielding et al., 2007)
- At an individual level, schools save their communities:
- “ a quarter of a million dollars *each* time their efforts keep *one* student from dropping out. In cases where staying in school protects a child from the risk of drug abuse or criminal behavior, the “monetary value of saving a high-risk youth” skyrockets to estimates that range from US\$1.7 million to US\$2.3 million” (Vanderstaay, 2006, RRQ, p. 333).



# The wider socio-emotional needs of children with literacy difficulties

- **Most** children, regardless of gender ethnicity and SES respond well to good interventions
- There is little good evidence here. For the sub-set of those who continue to struggle happiest with:
- *‘high levels of equal status peer interaction’* (Nind et al., 2004)
- Programs for social well-being, friendship etc are **ALSO** needed alongside explicit literacy strategies



# Recommendations & Conclusions

- Evidence-based policy must become **evidence-based practice**
- Measure curriculum effectiveness
- Interconnected policy (e.g., preschool and school)
- Need for well-designed studies and triangulation of findings: Series of RCT's on one topic rare
- Need for research in school boards intimately connected with practice change
- Consider wider needs of children

