

WELLCOME PROJECT NEWS

July 2015



Hello!

The Wellcome Project Team would like to thank you for your participation in our Language and Reading Project.

We completed the final assessments of the children in the study in September 2014. Since then we have been finalising the results and writing up our findings.



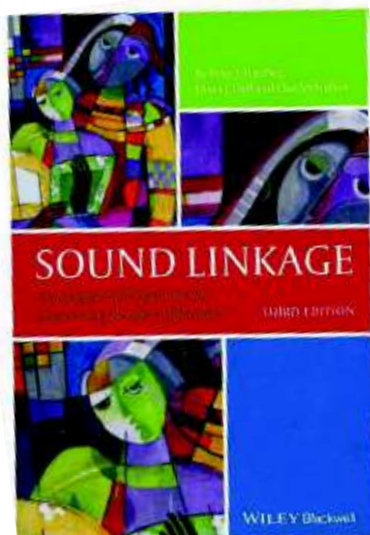
As the project is now complete, we wanted to tell you about our results. We also wanted to send a 'thank you' for taking part. We hope you find something enjoyable to read with your Amazon voucher – there are some suggested 'good reads' on the last page of this newsletter.

Thank you once again for your support. You can keep up to date with news about the Wellcome project at www.psy.ox.ac.uk/research/snowling-group/wellcome-reading-and-language-project/preschool-development.

If you have any questions, you can reach us by emailing CRLOxford@psy.ox.ac.uk.

We wish you all a relaxing and happy summer!

Professor Maggie Snowling, University of Oxford
(on behalf of the Project team)



About the project

The main aim of the Wellcome Language and Reading Project was to find out about the causes of Dyslexia and Language Impairment (LI) in order to understand better how to identify these difficulties early.

The study traced the development of children from 3 to 9 years of age: children who have a parent with dyslexia; children who had pre-school speech and/or language difficulties; and children who have neither a family history of dyslexia nor speech and language difficulties.

The key findings are detailed in this leaflet.

To find out more about dyslexia and dyslexia provision visit www.thedyslexia-spldtrust.org.uk.

To find out more about LI visit www.youtube.com/user/RALLIcampaign.

Key words

Comprehension

Ability to extract meaning from text

Decoding

Ability to pronounce written words correctly

Dyslexia

Learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding and poor spelling abilities

Language Impairment

When oral (spoken) language lags behind other areas of development for no apparent reason

Language Skills

Understanding and production of spoken language, vocabulary and grammar

Phonological Skills

Ability to tap into the speech sounds of language, for example asking a child 'What is cat without the "k" sound?' (at)

DYSLEXIA AND LANGUAGE IMPAIRMENT

Why does it matter?

We need to know which oral language skills are weak in dyslexia and LI in order to understand the difficulties affected children face in learning to read and spell so that we can develop appropriate interventions.

What we already knew

- Learning to read builds on spoken language skills.
- Children who have early language difficulties are at risk of developing later reading difficulties (dyslexia).
- Children often have both dyslexia and oral language difficulties.

What we wanted to find out

We wanted to understand what difficulties were shared between dyslexia and language impairment (LI).

What we found

- Dyslexia and LI are related but distinct disorders.
- Both are characterised by poor phonological skills.
- Difficulties with grammar and vocabulary are more common in LI.
- Children with LI often have poor fine-motor control and problems with attention, planning and organisational skills.
- Children who have a family member with dyslexia often show slower than expected language development in the preschool years.

Special considerations

Rather than thinking about dyslexia as a 'diagnosis' – something people have or don't have – it is more helpful to think about it as a continuum with some children unaffected, others mildly so and others severely affected.

In research we are often predicting children's levels of reading and spelling rather than whether they are dyslexic or not.

LANGUAGE, PHONOLOGICAL SKILLS AND READING

Why does it matter?

If we understand the problems which precede dyslexia, then we can advise on effective screening procedures before children fail.

What we already knew

- Children who go on to develop dyslexia tend to have difficulty with phonological awareness (reflecting on the sounds of words).

What we wanted to find out

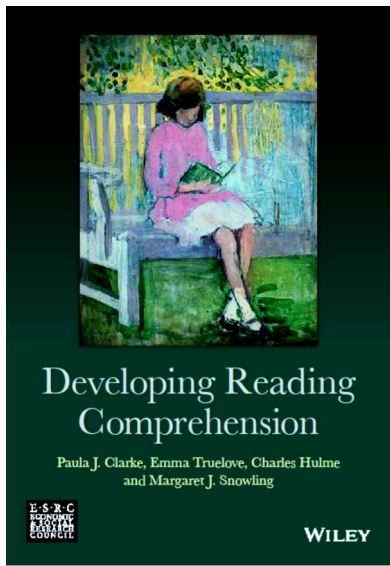
We wanted to understand whether speech and language difficulties can cause difficulties with reading and which types of speech and language difficulty increase the risk of poor reading (dyslexia).

What we found

- We showed that being at 'family risk' of dyslexia more than doubles the risk of early reading problems. If 'family risk' of dyslexia is accompanied by delayed language development, the risk for the child developing dyslexia is four times as much as in the population at large.
- An unexpected finding was that not all children with poor phonological skills go on to develop dyslexia. Children who go on to be diagnosed tend to have language difficulties that persist to school entry.
- For some children language delays have been overcome by age 5 and learning to decode then typically proceeds normally.
- We concluded that dyslexia might be thought of as a language learning impairment rather than the result of a specific deficit in phonological awareness as has sometimes been proposed.
- Early oral language skills also have a direct effect on later reading comprehension. So the impact of good speech and language at age 3 is wide-ranging.

Special considerations

It is important to bear in mind that although poor language skills increase the likelihood of dyslexia, we can only ever be about 80% accurate in predicting whether or not a child will have dyslexia from their development at 3–4 years old.



FAMILY INFLUENCES ON READING

Why does it matter?

It is easy to find out if someone has a family member with dyslexia. If genes and genetic mechanisms associated with dyslexia can be found, this could lead to earlier identification and assessment.

What we already knew

- Children who have a family member who is dyslexic are more likely to develop dyslexia than children not at 'family risk'.
- Some genes associated with dyslexia and dyscalculia (difficulties in learning arithmetic) have been identified.

What we found

- The genetic mechanisms leading to dyslexia are complex and we are a long way off understanding them. At the present time, knowing whether or not a child has a family history of dyslexia and asking about their knowledge of letters at 3½ years old provides a good indication about those likely to develop reading difficulties.

Special considerations

It is important to remember that genes act through the environment. Children who have a supportive home literacy environment (for example, children who are read to frequently) do better in the reading stakes. Teaching letters from an early age is a good thing.

LANGUAGE, READING AND MATHS

Why does it matter?

If we understand the causes of maths difficulties in children with reading difficulties, then we can be more helpful in providing support.

What we already knew

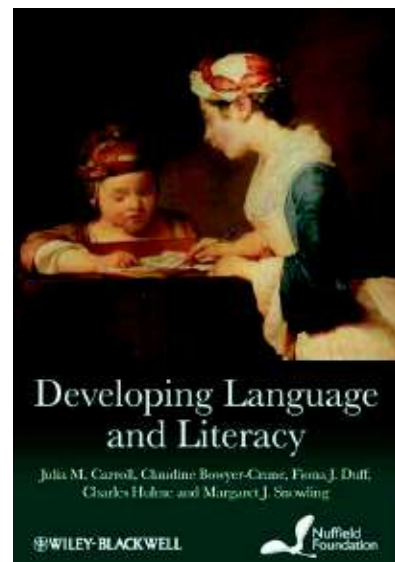
- Difficulties with maths and difficulties with reading often occur together in children.
- Children need good early language in order to learn the verbal labels of written numbers (e.g. 5 is 'five') and to count. Both of these skills are important foundations of children's later arithmetic.

What we wanted to find out

We wanted to understand why maths difficulties and reading difficulties often co-occur. Do they have the same cause?

What we found

- The language problems which contribute to dyslexia also influence maths development.
- Some children with dyslexia are free of maths difficulties. Others are impaired only in number tasks which require language (typically arithmetic tasks). This is consistent with the idea of dyslexia as a language learning disorder.
- Some children with reading difficulties have more widespread maths difficulties. In such children the causes of their difficulties with reading and with maths are different; the two skills need separate forms of intervention.



ENVIRONMENTAL INFLUENCES ON READING

Why does it matter?

If we find out how families might influence children's reading, we can help families to support their children's reading development.

What we already knew

- In general, the more literacy activities in the home, the better the child's later reading.

What we wanted to find out

We wanted to understand the ways in which a family's literacy practices can influence children's reading development.

What we found

- On average, the greater the children's early exposure to storybooks, the better their early decoding skills.
- In children at family risk of dyslexia, storybook exposure promoted phonological awareness, an important foundation for reading. This is probably because such children are less likely to pick up the sounds of letters spontaneously.



Carrie's War
Nina Bawden

Beast Quest
Adam Blade

Flat Stanley
Jeff Brown

Artemis Fowl
Eoin Colfer

Matilda

Charlie and the Chocolate Factory

The BFG

Roald Dahl

Diary of a Wimpy Kid
Jeff Kinney

NEXT STEPS

From our findings there are some clear ways in which you can help.

- Make sure you understand your child's strengths and difficulties. Promoting strengths is particularly important for ensuring motivation if there are special educational needs.
- If you are concerned about your child's progress in literacy, ask for an assessment. You should enquire about their attainments in decoding (word reading), spelling, writing, reading comprehension and arithmetic skills. Does your child need help in any of these areas?
- Consider whether your child has problems with attention control (for example, sustaining attention). If they do, find ways of helping them stay on task.
- If necessary, make sure that appropriate arrangements are made for your child in school.
- Would your child benefit from developing keyboard skills?
- Encourage your child to join in with everyday tasks which involve reading. Ask your child to read out a recipe for you as you cook or look at newspapers together. Take every opportunity to have discussions with your child and encourage them to share their opinions with you.
- To help your child read independently it is important that you select an easy book that your child will be able to read with at least 95% accuracy. This can make reading fun! Try to make reading a relaxing and enjoyable part of your children's daily routine. Praise your child for reading and talk to them about the books they read.

We would highly recommend the books below. If you haven't already read them, they might suit your child.



Private Peaceful
Kaspar Prince of Cats
Michael Morpurgo

Tilly's Promise
Linda Newberry

The Borrowers
Mary Norton

The Hobbit
J. R. R. Tolkien

The Story of Tracy Beaker
Jacqueline Wilson