



# Newsletter

## 2017

**The Surrey Communication and Language in Education Study (SCALES) is the first population study of language development from school entry in the UK. It is a four year, longitudinal study funded by the Wellcome Trust. This study traces children's language, educational and developmental progress from school entry to Year 3.**

### **What is the purpose of the study?**

There is considerable variation in children's language development and how children use language to learn and communicate with others. We want to understand why these variations occur, and how language skills are related to school and social success over time. To do this, we needed to sample the language and communication skills of a large and diverse group of children. We then traced the language development of some of these children in more detail and over a longer period of time. We hope this information will tell us how many children starting school need extra help with language, and what factors make it easier for some children to develop speaking and listening skills than others.

### **What is language disorder?**

Children with language disorder (aka language impairment) may have difficulty understanding others (receptive language), or sharing thoughts, ideas, and feelings completely (expressive language) which cannot be explained by a sensory deficit (e.g. hearing problems) or neurological impairments. Diagnosis of 'specific' language impairment traditionally required non-verbal skills to be within normal limits, often resulting in restricted access to clinical services for children with lower non-verbal skills. However, after much debate there is consensus that nonverbal ability should not feature in the criteria for developmental language disorder unless there is severe intellectual impairment that impacts on daily living and education.

### **What has happened so far?**

In 2012 all Surrey schools (mainstream, special, and independent) were invited to take part in the study.

**Stage 1:** Reception teachers completed a questionnaire for over 7,500 children in 188 schools across Surrey in Summer 2012.



*The SCALES team*

**Stage 2:** 600 children were randomly selected to take part in the longitudinal follow-up study (your child only took part if you gave consent to participate). These children were seen once in Year 1 (2012/13) and once in Year 3 (2014/15) for an in-depth assessment of language, reading, learning and social abilities. The research assessment took place at the child's school and was conducted by a trained member of our research team. Teachers and parents were asked to complete questionnaires about the child's language and behaviour.

The SCALES team are currently analysing the vast amount of data which has been collected. This newsletter outlines some of our key findings to-date and we hope there will be many more published soon!

*'At school entry, approximately two children in every class of 30 pupils will experience language disorder severe enough to hinder academic progress.'*

*(Norbury et al., 2016)*

### How did we assess language ability?

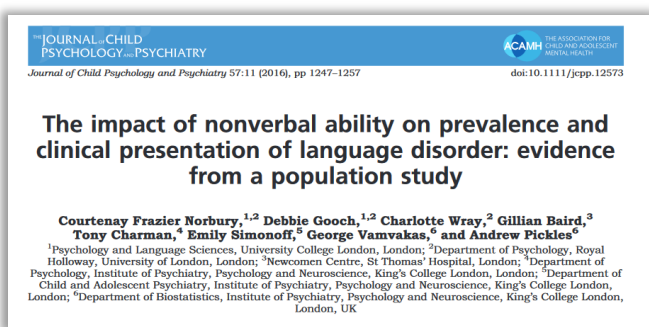
We used six assessments to assess children’s language abilities; 3 focused on the ability to understand language and 3 focused on speaking skills (the ability to put thoughts into words or sentences in an accurate way):

Understanding	Speaking
Receptive one word picture vocabulary test (ROWPVT)	Expressive one word picture vocabulary test (EOWPVT)
Test for reception of grammar (TROG)	School-Age Sentence Imitation Test-English 32 (SASIT E32)
ACE Narrative: Story comprehension	ACE Narrative: Story re-telling

Age norms for our language battery will soon be available on the SCALES website. This will enable practitioners who are using the same language battery to calculate 5 age standardised language scores: receptive, expressive, vocabulary, sentence and narrative as well as a total language composite score.

### How many children start school with language disorder?

In our recent SCALES paper (Norbury et al., 2016) we report that overall 9.92% of children start school with a language disorder; 7.58% have a language disorder of unknown origin while 2.34% have language disorder associated with intellectual disability and/or existing medical diagnosis.



Children with language disorder had more symptoms of social, emotional and behavioural problems relative to peers and 88% did not make expected academic progress. There were no differences between those with average and low-average non-verbal ability scores in severity of language deficit, social, emotional and behavioural problems, or educational attainment. Access to specialist clinical services should not depend on non-verbal ability.

### What is next?

Over the last few months the SCALES team have been busy putting together a grant application for funds to follow-up the SCALES cohort in Year 6 and again in Year 8. This is a critical time for our cohort as it covers their transition to secondary school and the onset of adolescence. We are particularly keen to further our understanding of the links between children’s language skills and their future social, emotional, and mental health (SEMH). In particular we are interested in how children use their language skills to help regulate their own feelings and behaviours and to help them understand the feelings and behaviours of others. We will find out whether the application has been successful in July 2017 and if the project is funded we will start contacting families via children’s schools in September 2017 to invite you to take part. Fingers crossed!

We are also currently working on papers looking at how children’s language skills change over time, how children’s ADHD symptoms may affect the relationship between speed of processing and language skills and how children’s memory and language skills are related.

Links to our publications, which are freely available, are on our new website: [www.lilac-lab.org](http://www.lilac-lab.org)

### SCALES at the House of Commons

Professor Courtenay Norbury was invited to talk about SCALES at the House of Commons as part of the All Party Parliamentary Group (APPG) on Speech and Language Difficulties ([www.rcslt.org/about/parliamentary\\_work](http://www.rcslt.org/about/parliamentary_work)) in November 2016. Courtenay talked about the prevalence and persistence of speech and language difficulties in children at school entry. Courtenay emphasised the importance of adequately training teachers about speech, language and communication as teachers play a key role in identifying and supporting children with language disorders in the classroom. See Courtenay’s latest article in the Guardian for further discussion:

<https://www.theguardian.com/science/head-quarters/2016/nov/01/all>



*Courtenay discussing the SCALES project with Lord Ramsbotham in House of Commons.*

## PhD projects



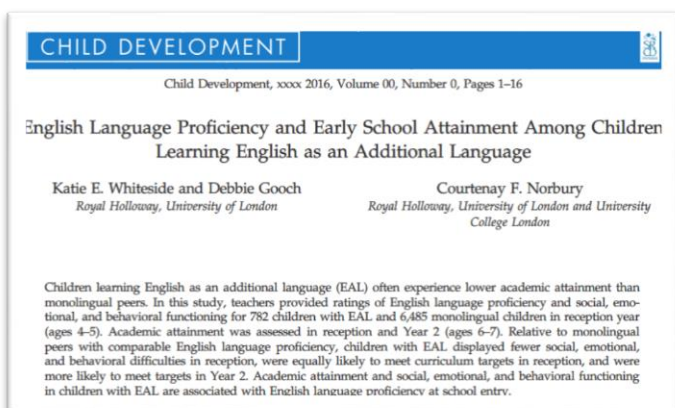
### Language and Cognitive Development in Children Learning English as an Additional Language (EAL).

**Katie Whiteside**

In England, 20% of primary school children speak English as an additional language (EAL), making these children an important group to study. In 2012, teachers completed the SCALES questionnaire for 782 children with EAL (11% of the total SCALES sample). In the next stage of SCALES, around 60 children with EAL were assessed in school in Year 1 and 80 children with EAL were assessed two years later in Year 3. In addition, parents of 56 children with EAL completed a questionnaire about language use at home.



In our recent paper (Whiteside et al., 2016) we report that greater English language ability in reception year, among both children with EAL and monolingual English-speaking children, is associated with greater academic attainment and better behaviour over the early school years. Furthermore, and importantly, children with EAL were equally likely to meet curriculum targets in reception year, and were in fact slightly more likely to meet curriculum targets in Year 2, relative to monolingual children with equivalent English language proficiency at school entry.



A key aim of this study was to explore how to identify children with EAL who may need some additional support with language learning. The best predictor of English language ability in Year 3 was performance on a range of English language measures in Year 1. However, parent report of delayed early language milestones may help to identify children who are likely to struggle with language and learning throughout the early school years.

Whiteside, K., & Norbury, C. (2017). *The Persistence and Functional Impact of English Language Difficulties Experienced by Children Learning English as an Additional Language and Monolingual Peers.* *Journal of Speech, Language and Hearing Research.*

Our second paper reports findings regarding the persistence and functional impact of language difficulties in children learning EAL. Results suggest that English language batteries may have some practical value for identifying bilingual children who need support with language learning, regardless of the origin of their language difficulties.

We would like to express a huge thank you to all of the schools, children, and families who participated in this project and made this research possible. We would also like to thank the Race, Equality and Minority Achievement (REMA) Team at Surrey County Council for their help and support within this project.

If you have any questions about this project, please contact: [katie.whiteside.2013@live.rhul.ac.uk](mailto:katie.whiteside.2013@live.rhul.ac.uk)

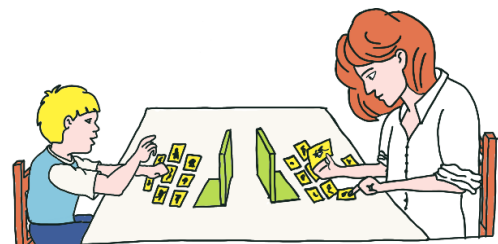


### Using gesture to support language

**Charlotte Wray**

#### Observation at home

The first part of this project explored how gesture is used at home during parent-child interaction. An amazing 63 families took part in the 1<sup>st</sup> stage of this project; we visited each family at home and asked them to complete different activities such as telling stories and playing charades. The findings indicate that parents frequently use gesture to support their child's language. The findings also suggest that children with lower language abilities use gesture to support communication by using gestures to replace words.



Wray, C., Saunders, N., McGuire, R., Cousins, G., & Norbury, C. (2016). *Gesture production in language impairment: It's quality not quantity that matters.* *Journal of Speech, Language and Hearing Research.*

### Gesture and word learning

The second part of the study explored whether gesture can help children learn new words. Sixty-nine children took part in the 2<sup>nd</sup> stage; each child was taught 6 new science words. The new words were presented either verbally **or** also with a gesture. In addition, some children were encouraged to produce the gestures they saw. We found that teaching children new words with accompanying gestures did not help them remember the new words. However, children who were encouraged to produce the gestures when learning a new word were able to express information through gesture that they were unable to verbalise. We are very excited about the findings of this project and the implications they may have for using gesture to support language and communication.

I am very grateful to all the children and parents that took part in this projects. Visiting all the families and seeing the children develop across the course of my project was the highlight of my PhD. Without their continued support, commitment and enthusiasm, this project would not have been possible.



If you have any questions about this project, please contact: [charlotte.wray.2013@live.rhul.ac.uk](mailto:charlotte.wray.2013@live.rhul.ac.uk)



For more information about language impairment please see the RALLI YouTube channel:

[www.youtube.com/user/RALLIcampaign](http://www.youtube.com/user/RALLIcampaign)

### Acknowledgements

The SCALES team would like to say a **BIG thank you** to all of the children, parents and school staff that have supported this project over the past 3 years. It has only been possible with your help and we truly appreciate the time and effort you have all put in.

We would also like to thank the Wellcome Trust for funding SCALES and Surrey County Council for supporting this project. We would specifically like to thank Jennifer Charters, Virginia Martin and Anne James who were instrumental in setting up SCALES, Miranda Virgo for her help with the educational assessment data, Gabrielle Close, and the Surrey REMA team, specifically Jane

Salkeld and Mariana Wallington, for their support with the SCALES EAL project.

Finally, we would like to thank the research team who worked on the SCALES project: Charlotte Wray & Katie Whiteside who are graduating with their PhDs in July!



Claire Sears (studying for an MRes at UCL), Harriet Maydew (training to be an Educational Psychologist), Rebecca Lucas (now Lecturer in developmental psychology at Roehampton), and our student research assistants: Natalie Kenney, Caroline Bird, Charlotte Nason, Hayley White, Tanya Hayman, Naomi Swain and Michaela Rea. The SCALES project manager Debbie Gooch is starting a Lectureship in Developmental Psychology at the University of Surrey in September but will continue to work with SCALES.

Now that data collection has finished, 2017 will be an exciting year for SCALES as we start using the data to help answer some of the questions we had at the start of the project. New SCALES publications will be made available on our website alongside summaries of our key findings. If you have any questions or comments about SCALES please contact us.

Best wishes,

*The SCALES team*

Supported by  
**wellcome**trust



### We have moved to UCL...

If you have any questions about SCALES please contact:  
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