Leeds Child Development Unit

Spring 2021 Newsletter

Welcome to the Spring 2021 edition of the Leeds Child Development Unit newsletter! We are back after an unusual year and we would like to tell you all about what we have been up to and our plans for future research. We have not been running any studies on campus but we have been working on many very interesting online projects.

All of this research is not possible without your help so many thanks to all our participants and their families!

Literacy

Screening for reading difficulties

25% of children leave primary school unable to read well, yet current screening for reading difficulties focuses on what children know on the day they take the test. This is problematic, because primary school children come from a range of home backgrounds and have lots of different experiences of language. In January 2019, we started the DART project to test whether **dynamic tasks** can improve screening for reading difficulties. Dynamic tasks measure children's **ability to learn** rather than what they currently know, which means they could be more accurate for children from diverse homes. The DART project has now worked with nearly 800 children across Leeds, using traditional screeners and our own dynamic computer games. Recently, we have caught up with children for the second phase of the project, to see how the children's reading skills have developed. We're now investigating whether our dynamic tasks are able to predict the change in children's reading skills. **We're currently studying the data and results will be available soon!**

DART
Dynamic Assessment of Reading Test

Bilingualism

Quantifying Bilingual Experience

Bilingualism is a worldwide phenomenon. However, there is no agreement as to how bilingualism should be measured and what aspects of language to include. To target this problem, Prof Cécile De Cat, Dr Draško Kašćelan, Prof Ludovica Serratrice, Dr Sharon Unsworth, Prof Philippe Prévost, Prof Laurie Tuller and Dr Arief Gusnanto have been working on developing a reliable assessment of bilingualism. They have done this by **reviewing existing bilingualism tools and by getting insights from 132 researchers, speech & language therapists and educators from 29 countries.** In this project, the research team has also been working on an objective method to identify early bilingual children who require additional language support.

This objective method will help practitioners estimate when a child who speaks a different language at home can be expected to "catch up" with their monolingual peers. **The tool is expected to be ready for online use by August 2021.** For more updates, visit the project website.

Q-BEx

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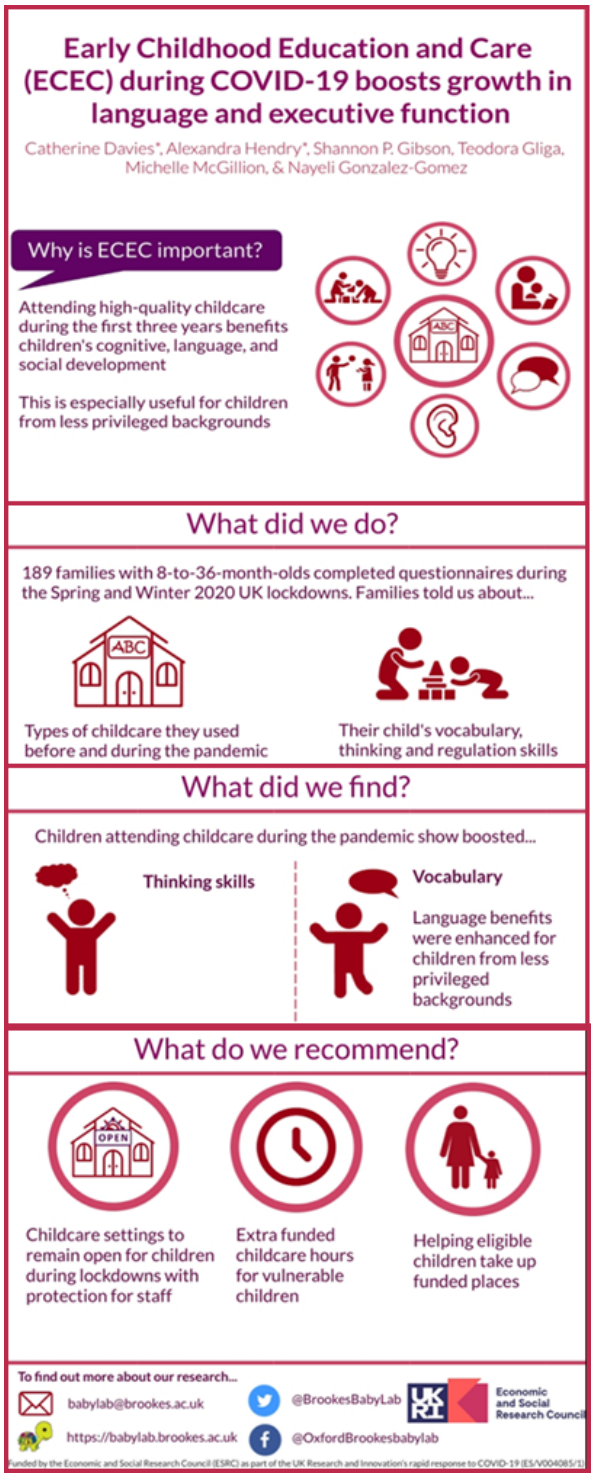
Child development during COVID

The impact of social distancing on toddlers' development

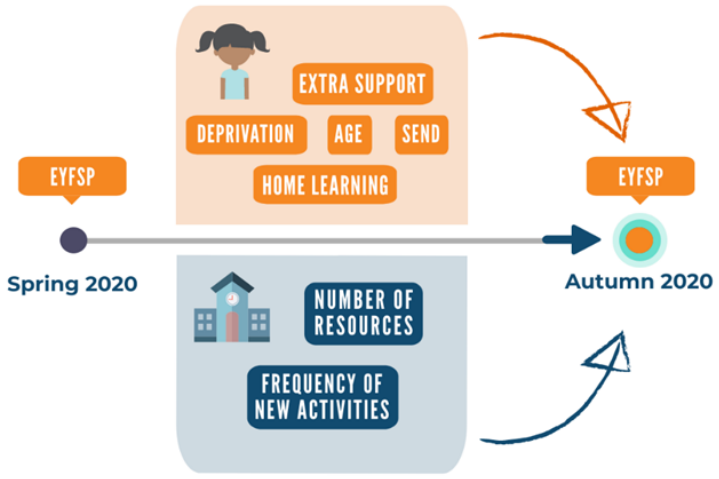
With expert colleagues at four other UK Universities, Dr Cat Davies is working on Social Distancing and Development, an 18-month project which began in May 2020. It examines how changes in childcare, parenting style, social interactions, sleep, screen use, and outdoor activities affect young children's cognitive development during the lockdowns. The group are following a cohort of 600 8–36 month-old children living in the UK to look at changes in their environment and measuring the impact on their vocabulary and thinking skills. The infographic below shows some early findings on the benefits of attending Early Childhood Education and Care (ECEC).



Impact of COVID-19 on Key Learning and Education

Dr Hannah Nash, Dr Paula Clarke, Dr Cat Davies, Dr Matt Homer, Dr Rachel Mathieson and Dr Peter Hart have been tracking the impact of the disruption to schooling during the Covid-19 lockdown. The Impact of COVID-19 on Key Learning and Education (ICKLE) project focuses on children's progress in key foundation skills from reception to year 1, and analyses how factors related to school, home, and children themselves may affect development. Using data collected by schools at three points – **before the pandemic, in early autumn 2020, and in spring 2021 –** they are investigating the factors that have affected pupil progress in phonics, literacy, maths, PSED, language and communication. The data will benefit schools in deciding how to allocate catch-up support. Project findings will inform national strategies to mitigate the negative impacts of lockdown post-Covid-19, and to address inequalities as disruption to schools continues.

Preliminary data suggests several factors affect children's progress at school:



Sleep

The impact of sleep on children with ADHD

Thank you to all families who signed up to be part of the control group for the Paediatric ADHD Sleep Study which investigates the relationship between sleep and cognitive development, daytime functioning, academic attainment and well-being in children with ADHD. After a few changes to the procedure due to the COVID-19 pandemic, we have now finished data collection for this project and are currently analysing and writing up the results. We managed to recruit and collect data from 30 participants in total, gathering a comprehensive assessment of sleep, cognition and well-being from these children. Preliminary findings show that children with ADHD slept for a shorter duration, had lower sleep efficiency and spent less time in REM sleep than children in the control group. We are busy investigating these results further and are excited to see if and how sleep relates to outcomes within this population.

Sleep and reading

When children first learn to read they sound out words letter by letter, but to become fluent readers they need to be able to recognise whole words. To do this, children need to build up a dictionary of sight-words in long-term memory via a process called **orthographic learning**. Orthographic learning refers to the process of going from being able to decode words by individual letters to being able to read by recognizing the whole words. Sleep has been shown to help consolidate orthographic learning in adults, therefore, our research aims to investigate how and when words become part of the sight word dictionary in children and whether sleep plays a role. We asked 9-to-11-year-old children to learn a list of words in the morning, or shortly before going to bed and assessed their memory for these words immediately after learning and roughly 12 hours later. **We have now finished data collection and are currently analysing the data.** We would like to say a huge thank you to all families who participated in the project, and we will report the findings soon!

E-DLD

Engage with Developmental Language Disorder is an initiative created by researchers from the University of Bath, City University of London and the University of Cambridge. Its aim is to create a community of children and adults with Developmental Language Disorder (DLD) and connecting them to academic research. **This new initiative is looking for families with children with DLD to sign up to their database.**

E-DLD Engage with Developmental Language Disorder

What is DLD?

Developmental Language Disorder is a disorder where children have language skills that are persistently below the level expected for the child's age. These deficits occur in the absence of a known condition or disorder that could explain these difficulties. Some aspects of language that may be affected include speech sounds, vocabulary, social communication, grammar, among others. DLD is thought to affect 7% of all children, which is around two children in every classroom.

For more information or to sign up, visit the E-DLD website

What will happen if I sign up?

- You will be asked about yourself, your child, your family and your contact information.
- You will get up to one email per month with information about research studies looking for participants. It is up to you to decide if you want to contact researchers and take part in a study.
- You will also receive regular newsletters that will provide summaries of relevant scientific studies as well as scientifically informed tips of how to best help and support their children.

Coming soon

Semantics and syntax in early childhood

When we speak we often use words that convey our point of view or report about others' point of view. For example, phrases such as "*the good man*" or "*the sweetheart*" typically give information about our subjective evaluation of someone. We can also use language to report about the perspective of another person, for example what they 'think' or 'believe'. **At what age do children learn how to determine the linguistic perspective inside sentences?** Dr Valentina Brunetto is designing a study that investigates how 4-6 year-olds interpret evaluative expressions inside simple and complex sentences, using short stories and pictures. She is interested in the link between syntactic development at this age and children's ability to track point of view and perspective shifts in language – a skill that will become very important when they comprehend narrative texts. More information soon!

What is Semantics?

Semantics is the study of the relationships between words and how we draw meaning from those words.

What is Syntax?

Syntax is the study of the structure and formation of sentences.

Language skills of pre-adolescents in the Born-in-Bradford cohort

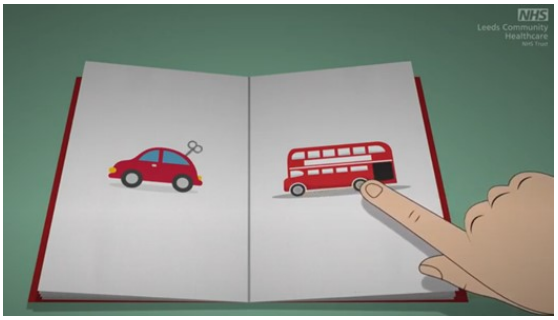
Adolescents from deprived backgrounds and with English as an additional language (EAL) tend to have poorer language skills compared to their peers. This can be a significant problem as language is known to predict later life opportunities. Working with the Centre for Applied Education Research, Prof Cecile De Cat, Dr Lydia Gunning and Dr Ekaterini Klepousniotou will investigate the grammar, reading and narrative skills of Year 7 pupils in Bradford. This will allow them to understand the impact of deprivation and EAL on various language outcomes. They will also investigate if the method of testing (face-to-face, though video call, or automatised) can have an impact on children's engagement and performance. Findings will be used to inform schools about language assessments at the start of Key Stage 3.

Next academic year, the team will also be conducting a complementary survey of current reading assessment practices across Bradford secondary schools. You can read more about this here.

Impact

Our research impacts life outside of universities

We know that outdoor play is important for children because it helps physical, mental, and cognitive development. Our research showed that some children missed out on outdoor play during the first lockdown. Based on those results, our researchers raised £1,335 and partnered with a small business and a charity to provide children with warm outdoor clothes and wellies. This helped 119 toddlers to enjoy the outdoors ... whatever the weather! More details here!



We've worked with Leeds Community Healthcare NHS Trust to collate the evidence base for their Top Ten Tips for Talking to your Child. Find animations AND science here!

Interested in taking part in our studies?

Our research is only possible with your help! We're always looking for more families to take part. Are you interested or do you know someone who might be? Please contact us for more information or visit our website to sign up for our database! For more information on how to sign up click here.

If you know of anyone who might want to take part in one of our studies, please direct them to our website.

Why we contact you - and why we don't

Age

Each of our studies targets a very specific age range. When we start a study, we look for families who have children in this range at the moment of testing. If we don't contact you, your child may just have been a little too young or a little too old to participate this time around.

Multilingualism

For most of our studies we are looking for monolingual children because this is the 'simplest case'. Studying language development in a child who knows just one language is already very complex. However, other studies specifically focus on how multilingual children develop their languages, and we are keen to contact our multilingual families then!

Contact details

If your child fits the criteria for our research, we try our best to get in touch with you through phone or email. However, sometimes we are unable to reach families because their contact details have changed, or there's an error in our records.

If you think this might be the case for your family, please contact us using the details below, so that we can reach you in the future!