Issue 1: January 2024

Numer8ED 2

Project Newsletter

Greetings from the Numer8Ed.2 team!

Happy New Year from the Numer8ED.2 team! We hope you have all had a lovely Christmas break. Welcome to the first edition of our project newsletter, where we give you updates about our research project and what we've been up to!

The Numer8ED.2 Project:

Our research investigates the development of proficiency with rational numbers (fractions and decimals).

We are using cognitive psychological research to investigate how best to improve proficiency with rational numbers. This project is divided into three parts:

- A longitudinal study to identify which cognitive precursor skills predict later proficiency with rational numbers.
- Eye-tracking studies to discover the mechanisms by which those precursor skills support the development of rational number proficiency.
- Developing a training to increase competence with rational numbers.

Our team is led by Prof. Dr Silke Göbel, assisted by Dr Tatjana Zimasa and Amber Bonser.

Meet the team:

Prof Dr Silke Göbel - Project Lead

Dr Tatjana Zimasa - Research Associate

Amber Bonser - Research Project Coordinator

The Numer8ED.2 team

Longitudinal study launch 2023:

In Summer 2023 we launched our Longitudinal Study following secondary school pupils through Y7-Y9 to explore how their skills with fractions develop. A big thank-you to our participating schools and pupils for all your hard work! Here is a breakdown of the last few months for the Numer8ED.2 team:

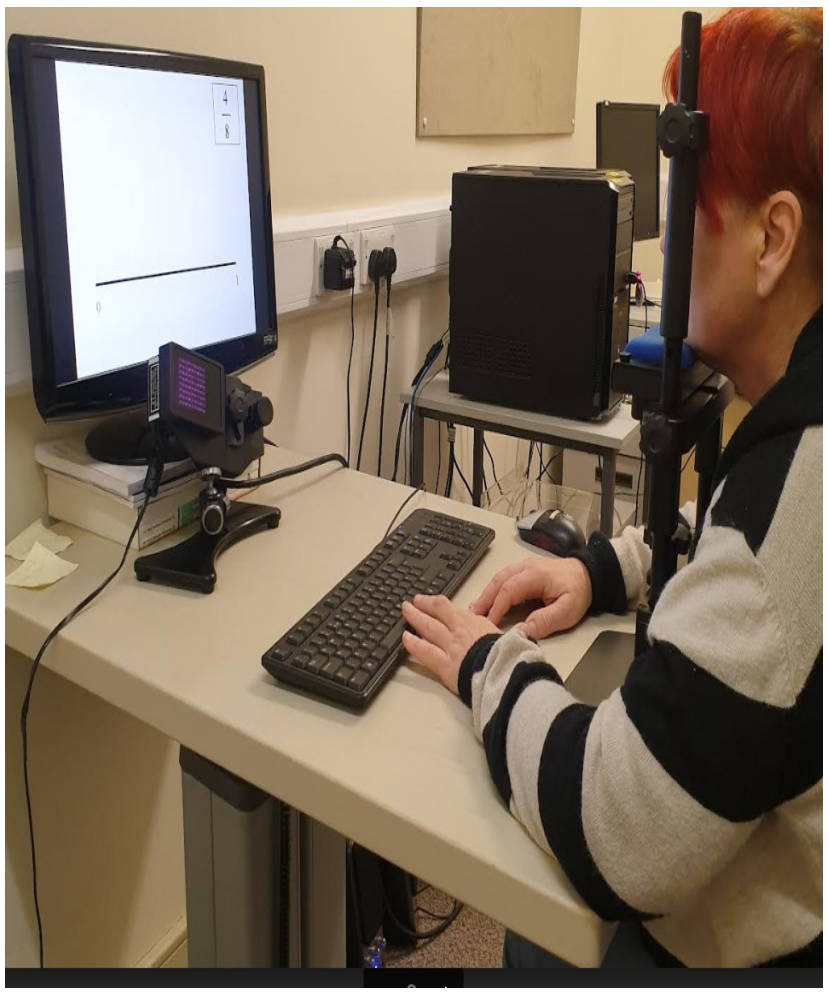
- June-July 2023— We completed our first round of assessments working with nearly 200 Y7 pupils.
- Summer break 2023—Our hard-working research students were busy scoring and entering data from our work in schools.
- Autumn 2023—Schools received feedback on our assessments and gift cards for participating classes.
- Winter 2023— We've been busy analysing our data and planning our next visits to schools.

Eye tracking study:

In December we have commenced piloting the eye-tracking strand of our project. Using non-invasive cameras to measure eye movements, we aim to explore how people move their eyes when working out our fraction and decimal tasks.

We then use eye movement data to measure things such as attention, viewing time, and pathways of visual processing, all of which can give us insights into how participants are processing what they see.

This study will give us insight into how people process fractions and decimals. We are eager for participants to take part in this work and will be offering the opportunity for children and young people to take part soon. So keep an eye out for more information from us!



Our team member Tatjana demonstrating the eye tracking setup! The camera in front of the monitor is used to track eye movements, the head rest helps participants keep their heads still.

Coming in 2024:

2024 is set to be another exciting (and busy!) year for the Numer8ED.2 team. In spring 2024 we will be visiting our 2023 schools again to complete Y8 assessments.

In Summer 2024 we will be working with more Y7 pupils in new schools for the second wave of our longitudinal study!

We will also be working on collecting data from both adult and child participants for our eye tracking study.

Opportunities and events to look out for:

- Outreach—talks in schools and sixth forms. For schools taking part in our research study, we will be offering talks about working in psychology research for students.
- Eye tracking in children and young people. We will be recruiting for this phase of the project in Summer 2024.
- York Festival of Ideas—The Numerical Cognition Lab will be at York Festival of Ideas this year (2024). We will send more information about our involvement later this year.

Interested in getting involved?

For more information or to express an interest in getting involved with our research, please email us at numer8ed2-project@york.ac.uk

Numerical Cognition Lab Website:

Remember to visit the Numerical Cognition Lab website for ongoing and up-to-date information about the Numer8ED.2 project and other Numerical Cognition research projects. Our website can be found at: https://www.york.ac.uk/psychology/research/development-and-cultural-processes/numerical-cognition-lab/