

Orchestrating Numeracy and the Executive – The ONE Project

INFORMATION SHEET FOR EARLY YEARS PRACTITIONERS

Ethics Approval Reference: R85139/RE006

In partnership with researchers at the University of Oxford, the University of Sheffield, RAND Europe, Qa Research, the Education Endowment Foundation (EEF) and the Stronger Practice Hubs (SPH), your workplace has agreed to take part in a study investigating how to improve maths ability in preschool-aged children through enhanced new maths activities. We would like to invite you to help us lead this project, as well as to provide us with some information about yourself. Before you decide whether you wish to be involved, it is important that you understand why the study is being done and what it will involve. Please take time to read the following information carefully. If there is anything that you do not understand, or if you would like more information, please ask us.

What is the ONE project?



“The ONE” is a programme consisting of practitioner development and guided play preschool activities to improve children’s numeracy and executive functions. Executive functions are a set of thinking skills such as inhibiting actions and distractions, holding information in mind and thinking flexibly, that we now know are all essential to early years numeracy skills. The ONE aims to improve numeracy most effectively by combining executive and maths activities into a single intervention before entering school.

The ONE was co-designed by a team of researchers from the University of Oxford, Sheffield, Ulster, collaborators in Australia and Canada, and also, crucially, with Early Years colleagues in UK preschools. The ONE consists of face-to-face training for educators, a pack of 25 activity cards, and resources to be used with the activities. The cards describe play-based maths activities and highlight how to gradually increase executive function demands within maths learning. Some of these activities are all-time favourites, but introduce maths and embedded executive function challenge. Other activities are likely to be less familiar, and extend the breadth of maths skills that educators can support. The overall aim is for practitioners to scaffold their pupils’ maths learning at the optimal level of challenge, to boost early maths development. The activities last five to ten minutes and can be embedded into preschool routines such as small group activities, outdoor play, and free play. The programme is delivered in an Early Years setting by the setting staff. Setting Staff are asked to engage in a minimum of three activities per week for the 12-week duration of the programme across three key areas of early years mathematics (numbers and counting; ordering and patterns, shapes and spatial awareness). Staff have the flexibility to choose how to implement the activities (big groups, small groups or a combination) and which children to involve, as long as staff taking part in professional development and the children in the year preceding the move into Reception are included in these activities. The ONE was piloted in England and was recently evaluated in a small-scale feasibility study. Results from that study suggest that children who received the intervention made more progress in numeracy skills and some executive function skills than other children, that progress was larger for economically disadvantaged children, that practitioners found the activities worked well for children, that

most practitioners enjoyed the training and they were able to deliver the expected number of activities each week.

Why have I been invited to take part?

The preschool where you work has volunteered to take part in the evaluation of The ONE intervention. Our intervention is practitioner-led, and we are therefore calling upon practitioners from your preschool to undertake training and run these activities with the children in your classrooms. We would also like to collect some data from you as this will help us to understand the factors that make the intervention successful or unsuccessful.

Do I have to take part?

No. You can ask questions about the study before deciding whether you wish to participate. You will be given the opportunity to provide information about your experiences, such as how you felt about the intervention or about your own prior teaching experiences. If you do not wish to provide this information, you will still be able to participate in the professional development elements of the study.

If you do agree to participation, you may withdraw your data from the study up until the data have been made anonymous, without giving a reason and without penalty, by advising the researchers of this decision.

What will happen if I decide to take part?

- Research will take place both in-person, at your place of work, and via online forms.
- If you decide to take part in the research element of the study, by providing information about yourself, you will be asked to provide your consent to do so. You would do this by completing the consent form. Please remember that you may ask the researchers if you have any queries.
- Signing the consent form is not compulsory in order to receive the professional development activities.
- You may be asked to complete a questionnaire, which will provide us with some information about you.
- Each preschool will be randomly assigned to either intervention or a waitlist control group. The Intervention group will have intervention specific activities in their classrooms led by early years practitioners from January 2024, whereas the waitlist group will receive the intervention from September 2024. If your school is assigned to the intervention group:
 - You will be invited to take part in a training programme, consisting of four face-to-face interactive sessions (half an hour per week, spread at your convenience)
 - The intervention will take place for 12 weeks. During this time, it will be up to you how many of our activities you wish to lead, as long as pupils engage in a minimum of 3 activities each week;
 - Researchers will carry out occasional observations of maths activities.
 - Before the intervention, and at the end of the 12 weeks, we may ask you to give us feedback on the intervention via short questionnaires and an interview – audio recorded in a quiet area of your preschool, to aid our notetaking, and recordings will not be shared – to find out which activities were the most successful. Children at your preschool will not be identifiable from these interviews.
 - Please be aware that we are focusing on our activities; we will not be making any judgements about your teaching style or abilities.
- Regardless of whether your school was taking part in the intervention, researchers will assess children individually once before the intervention and after the intervention, in a quiet space within the preschool. This will allow us to understand whether the intervention has been successful. All researchers hold a current Disclosure and Barring Service (DBS) certificate. All visits will be in the classroom either during class time or break time.

What are the advantages / disadvantages of taking part?

By taking part in the study, you will receive training on maths, executive functions and integrating the two. This research may also help children and preschool practitioners in the future. There are no disadvantages of taking part.

Data

What happens to the data provided?

The information you provide during the study is the **research data**. Any research data from which you can be identified (such as your name and demographic information), is known as **personal data**.

Personal data will be stored in a safe and encrypted server at RAND Europe and at the University of Oxford and Sheffield. Only researchers included in the research teams at RAND Europe, and Oxford and Sheffield will have access to these data. Identifiable personal information (consent forms and audio-recordings) will be stored safely and in locked cabinets or encrypted folders. Your name will be replaced with a numerical code so data will no longer be identifiable to anyone outside the research team. There will be a password protected sheet with this participant code which connects personal data and information from your questionnaire to research data. This will be securely stored in our secure server, separate from all other data, and only our researchers will have access to it. Staff personal data and the research data will be stored on a secure RAND Europe and Oxford / Sheffield University server and any data in transit (e.g., research laptops) will be on encrypted devices. Personal data held by the researchers and the linkage key will be deleted three years after publication and dissemination of information. We keep these data in case reviewers or readers of publications ask researchers to re-analyse data in a different way.

For audio-recordings of our interviews, we will record in a quiet area of your preschool, asking you not to name yourself and children at your preschool. Audio files will be stored safely, transcribed and destroyed after transcription by our team. Notes from our observations of maths activities in your setting will not contain personal information about you or individual children at your setting.

We will securely store staff consent forms at the University of Oxford, after being transferred safely (monthly) from Sheffield to Oxford, either in hard copy or electronically. The personal data will be destroyed three years after publication and dissemination of the research, likely by September 2028.

Other research data will be stored for 10 years after publication or public release of the work of the research. Anonymised research data alone will be posted on research platforms such as the EEF Archive for research transparency. Regular summaries of our findings carrying no identifying information will be given to your preschool and will be available to interested families.

From September 2023 until the evaluation report is published, RAND Europe is data controller of your personal data for the purpose of legitimate interest, which is for finding out if The ONE improves early numeracy for children. After the evaluation report is published, the University of Oxford will be the data controller with respect to your personal data and, as such, will determine how your personal data is used in the study. The University will process your personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest. Further information about your rights with respect to your child's personal data is available from <https://compliance.web.ox.ac.uk/individual-rights>.

Publishing

Will the research be published?

The research may be published in academic publications and websites, in addition to the mandatory report required by the Education Endowment Foundation, who are funding this study. Part of this work will be written up as a student's doctoral thesis. The thesis will be deposited both in print and online in the [Oxford University Research Archive](#), where it will be openly accessible. Personal details will not be included in any reports. Quotations from interviews will only be reported with permission, and without names.

Researcher Details

Who is conducting this research?

The research project is organised by Professor Gaia Scerif of the University of Oxford. This study has been reviewed by, and received ethics clearance through, a subcommittee of the University of Oxford's Central University Research Ethics Committee, R85139/RE006.

Action Points

What should I do next?

Your participation in this project is via opt-in, which means that you must notify the researchers if you do wish to participate. To indicate that you do wish to participate, please complete the form titled "Practitioner consent form" and return it your nursery manager / researcher. Please remember that you may withdraw from this study up until the data have been anonymised, without penalty and without giving a reason, by notifying the researcher.

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

Principal Investigator: Professor Gaia Scerif

Tel: 01865 271403

Email: gaia.scerif@psy.ox.ac.uk or TheONE@psy.ox.ac.uk

For further information, please see the project website [here](#).

If you wish to make a formal complaint, please contact the Chair of the Medical Sciences Interdivisional Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible: Email: ethics@medsci.ox.ac.uk ; Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, OX3 7GB.

Please keep this information sheet for your record.