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Orchestrating Numeracy and the Executive – The ONE Project Information for Settings - R85139/RE002

Purpose of this document

This document is designed for Early Years settings about “The ONE,” which stands for Orchestrating Numeracy and the Executive, and is a programme consisting of practitioner development and guided play preschool activities to support children’s numeracy and executive functions. We are inviting state-maintained and private, voluntary and independent nurseries to receive funded professional development through “The ONE”, delivered by the Universities of Oxford and Sheffield.

What is the ONE project?

As part of the Department for Education’s Early Years Recovery Programme, the Stronger Practice Hubs, and the Education Endowment Foundation are working together to fund Early Years settings’ access to evidence-informed programmes and study the programme’s influence on practice and children’s outcomes.



One of the programmes that is being supported is “The ONE”, 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 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.

What does the programme involve and who can take part?

The ONE consists of face-to-face training for educators, a pack of 25 activity cards, and resources to be used with the activities. There are weekly 30-minute face-to-face professional development sessions for the first four weeks of the programme, during which staff will be trained in their own settings. These sessions are scheduled at times and in formats that best suit practitioners at each setting (e.g., 1-to-1, or in a group). The sessions introduce the activity cards, they support educators’ understanding of how early maths and executive functions co-develop, and they explain how executive functions can be embedded into a range of early maths learning activities. In addition to reflections during professional development, one representative per setting is contacted in the eighth and twelfth weeks by the delivery team, to provide support, times for reflection, and to check how delivery is going.

The cards describe play-based maths activities and highlight how to gradually increase executive function demands within maths learning. Some of these activities will be familiar to most practitioners, but introduce maths and embedded executive function challenge. Other activities are likely to be 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. Practitioners 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, as long as:

- i) staff taking part in the professional development are involved in facilitating these activities,
- ii) the children in the year preceding the move into Reception are included in these activities.

If your setting is large, we might require you to nominate a target preschool room within your setting, with its staff and children, to make sure that we evaluate those staff and children who have received the intervention.

Settings who have agreed to participate in the project, who have not signed up to receive more than one funded Stronger Practice Hub programme between 2022-2025, and host 10 or more children due to enter Reception in September 2024 will either be randomly assigned to deliver The ONE for 12 weeks from January 2024, or to a waitlist control group who will instead receive the programme in the 2024/2025 academic year.

All participating settings will receive the ONE training and programme materials. All settings will also receive compensation for their time and a subsidy for participation. These are:

- i) In recognition that there are costs associated with undertaking and implementing professional development, additional funding has been made available by the EEF to reimburse nurseries for 50% of their staff's time/cover cost to attend training.
- ii) In addition, to support engagement with research activities (e.g. organising days researchers can visit to complete child assessments, educators completing surveys or interviews) every setting involved will receive a payment of £300 to thank you for completing the activities. The payment will be provided in August/September 2024 after the final set of child assessments and surveys.

What are the potential benefits for my setting?

The ONE was piloted in England and was recently evaluated in a small-scale 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 that the activities worked well for the children; that most practitioners enjoyed the training; and, that they were able to deliver the expected number of activities each week.

The EEF and DfE are now looking to build on previous research to establish the programme's influence on practice and children's outcomes.

Who is involved in the delivery and evaluation?

The current project involves a partnership between The ONE team delivering the intervention, researchers at RAND Europe evaluating it, and the Education Endowment Foundation (EEF) and the Stronger Practice Hubs (SPH), who are providing the resources for the project. Qa Research will collect data from children before and after the intervention with trained test administrators. The researchers from RAND Europe are responsible for the independent evaluation of The ONE and of its impact on early numeracy. Staff based at the Universities of Oxford and Sheffield will train a small number of trainers, who will then provide the training to educators. Detailed information on the data we collect is available here [link to privacy notice for parents and staff].

What is the evaluation going to do?

The aims are both to support education recovery following the pandemic, and to develop our understanding of effective professional development in the early years. All nurseries will take part in the evaluation from September 2023 – July 2024, whether they are part of the first or second cohort to receive the programme.

The evaluation team will explore:

- The impact that The ONE has on pupil outcomes (the ‘impact’ evaluation)
- How The ONE is implemented and the experiences of those involved in it (the ‘process’ evaluation)
- The costs of running The ONE (the ‘cost’ evaluation)

The results of this evaluation will be made publicly available in a report on the Education Endowment Foundation’s (EEF) website. Subsequent research using this data may be published in academic publications and written up as a student’s doctoral thesis, where it will then be deposited both in print and online in the Oxford University Research Archive.

For further information, please see the project website [here](#) or write to: theone@psy.ox.ac.uk

If your preschool would like to take part in the study, or you need more information about what is involved, please contact us. Whether or not you feel it would be appropriate for your school to participate, I would be grateful if you would complete the pro-forma below and return it to me via e-mail or letter, at your preference.

Thank you for your time and attention. We will contact you again shortly to answer any outstanding questions.

Please keep this information sheet for your record.