



Independent evaluation of Maths Champions in nursery to develop children's early numeracy: A two-armed cluster randomised controlled trial

Technical Notes

To accompany the Evaluation Report

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Appendix 1 – Recruitment Documents (Main Evaluation)

Included in this Appendix:

- Memorandum of understanding: MC II Main Trial MoU v3.1 20210317
- Parent/carer information sheet: MC II Information for Parents Carers V1.4 20210709
- Parent/carer consent form: MC II Parent Carer Consent Form V1.1 20210712
- MCII Brief Information for Settings v1.0_20200110

Maths Champions II Research Project

MEMORANDUM OF UNDERSTANDING

What is this research about and why is it important?

Findings from the Early Years Foundation Stage Profile show that children perform least well in Maths (number and shape, space and measure) against other learning areas. Due to this, the National Day Nurseries Association (NDNA; ndna.org.uk) developed the 'Maths Champions' programme. The aim of the programme is to improve practice in maths across a whole early years setting by providing access to online training, evaluative tools, and resources to enhance maths practice and build the confidence and skills of practitioners working with young children.

We are looking for 138 nursery settings (private, voluntary, independent, maintained, or school-based state funded) to take part in a research project evaluating the NDNA's Maths Champions programme!

As part of the programme, settings nominate a lead practitioner to be the 'Maths Champion'. Where possible, the nominated Maths Champion should be an early year's teacher or graduate in early years. Where this is not possible, the nominated Maths Champion should be responsible for leading the quality of the EYFS and qualified to level 3 as a minimum. Settings also nominate a 'Deputy Maths Champion' (who is the room leader of 3 or 4 year old provision and qualified to at least level 3). Together they are supported by NDNA and provided with an online induction to the programme (1 hour in duration, you can attend a 'live' online induction or view a recording at a time that suits you best), access to 3 online training courses (up to 2 hours in duration and can be conducted at your own pace), one-to-one support by phone or web-conference, audit tools and a wide range of resources. These are used together to review, reflect on and improve practice. The Maths Champions programme is all online, so there is no need for staff to leave the nursery setting.



Previous research (funded by the Education Endowment Foundation, EEF, who are the government-designated 'What Works Centre for Education') found that children attending settings using the Maths Champions programme may make, on average, two months' additional progress in maths (report available here: educationendowmentfoundation.org.uk/projects-and-evaluation/projects/maths-champions/). Based on these findings, the EEF have funded this second, larger research project to look further at the impact the Maths Champions programme may have on children's outcomes.

What does your setting get for taking part?

- Participation in research that aims to improve the evidence-base surrounding early years learning.
- £500 cash: your setting will receive £250 following the return of at least 10 parent/carer consent forms and before the first child assessments take place (September 2021) and £250 after the final assessments (June-July 2022) to support your setting to take part in the research project.
- A 50% of chance of receiving FREE access to the Maths Champions programme during the 2021-22 school year (further details provided below).

Who can take part in the project?



- Private, voluntary, or independent (PVI) nurseries, maintained nursery schools or children's centres, or state funded school-based nurseries.
- Settings willing to nominate a practitioner to be the Maths Champion, who will run the programme in your setting if your setting is randomly allocated to use the programme, and nominate a practitioner to be the Deputy Maths Champion, who will support the Maths Champion.
- Settings with onsite access to a computer with internet connection.
- Settings that are not currently using the NDNA Maths Champions programme and have not done so in the past.
- Settings that have a minimum of 15 children aged 3-4 year olds, who will attend the setting for a minimum of 15 hours a week and are due to start reception in September 2022.
- Settings who are not taking part in the evaluation of the Department for Education's Early Years Professional Development Programme or any other Early Years trials funded by the Education Endowment Foundation or similar funder.
- Settings that agree to all project requirements outlined here.

What will taking part in the project involve?

We would like your setting to complete the activities listed below. This is regardless of whether your setting is randomly allocated to use the Maths Champions programme (see box on the right):

1. Provide the number of children within your setting who are eligible for the evaluation (that is, children aged 3-4 years old, attending nursery for at least 15 hours a week, and due to move to reception class in September 2022), hand-out information sheets and consent forms to parents/carers of all eligible children, and collect in completed consent forms.
We would like your setting to gain parent/carers consent for at least 10 eligible children.
 - Children are not eligible if they have significant SEND, or EAL where an extreme language barrier exists, which would prevent them from accessing the assessment and/or would be distressed through completing the assessment (described below).
 - We are asking for parents/carers to consent for their child(ren) to take part in the evaluation. This involves parents/carers agreeing to their child(ren) completing assessments (more detail in points 3 and 4) and for the setting to share information about them with the research team (more detail in point 2).
 - Parents/carers do not have to provide consent for their child(ren) to take part in the evaluation if they do not want to and can withdraw their consent if they change their mind. *If your setting is randomly allocated to use the Maths Champions programme, all children will receive the programme within your setting.*
2. For all children whose parents/carers have provided consent, we will ask you to share children's personal information, including: forename; surname; date of birth; gender; home postcode; Early Years Pupil Premium status; if English is an Additional Language; eligibility for/receipt of government funded childcare at 2 years of age; the results of their Ages & Stages Questionnaire (ASQ-3) at 2 years old (if available); the results of their EYFS check at 2 years old (if available); attendance at nursery per week;

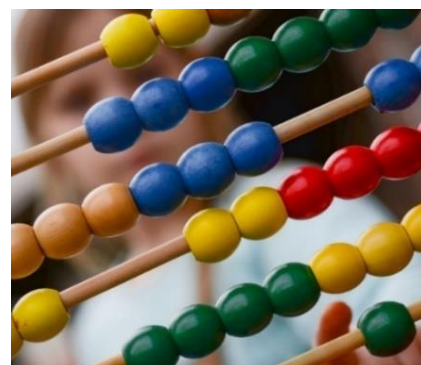
As part of the research project, 69 settings will be chosen at random to receive the Maths Champions programme for FREE. The other 69 will continue as normal and form the important 'control group'. Randomly allocating which settings receive the programme is essential, as it is the best way to find out the impact the programme has on children's attainment. This type of research is called a randomised controlled trial.

You will find out which group your setting has been allocated to in October 2021, after assessments are completed. Settings allocated to receive the programme will be inducted from mid-October 2021.

new nursery destination (if they move during the study); and school destination at the end of the project. A Data Sharing Agreement between your early years setting and the evaluation team will be put in place detailing this. Please see the parent/carer information sheets for details on how we will collect, store, use and report children's data.

3. Complete a short assessment in September-October 2021 called ASPECTS with participating children whose parents/carers have provided consent.

- Children complete ASPECTS one-to-one with an adult (e.g. their key worker, room leader, teacher, teaching assistant, or research assistant) on a computer/laptop (not a tablet) and it usually takes around 10 minutes per child. Children tend to enjoy using ASPECTS as the computer tells a story and then asks the children to answer questions about it.
- A 15-minute pre-recorded, online training session will be provided on how to set-up and run ASPECTS.
- ASPECTS is often used to complement practitioner's own observations, so you may find it useful that ASPECTS feedback (on a child's literacy and maths) will be available for you to view and can be printed for parents/carers after the assessment is complete.
- If your setting gains parent/carer consent for more than 10 eligible children, we will select at random the 10 we would like you to assess.
- **If you think your setting may struggle to complete these assessments, we can arrange for a research assistant to visit your setting to complete ASPECTS with the relevant children. We talk more about research assistants below.**
- Further information on ASPECTS can be found here: cem.org/early-years. In order for the ASPECTS assessment to be conducted, CEM will collect: child name, date of birth, gender, year group and class. Information on CEM's use of personal data can be found in their Privacy Notice, available here: cem.org/privacy-notice



4. In June-July 2022, we will arrange for a research assistant to visit your setting to complete ASPECTS again with the same children.

- Research assistants have DBS clearance, have completed safeguarding training, and are used to working with young children.
- The child's key worker or a familiar staff member will need to be available to chaperone during the assessment to ensure the children feel comfortable.
- We will ask you to tell us when the participating children usually attend nursery, so we can liaise with you to visit on a day(s) when most children are there.
- To enable us to complete ASPECTS, we may ask you to provide us with information on a child's new nursery setting should they leave before June/July 2022 (parent/carers will have consented to allow us to do this).

5. We are undertaking a related but separate piece of research, exploring the accessibility and coverage of routinely collected Ages and Stages Questionnaire (ASQ-3) data. In order for us to do this we may ask you to distribute a second information sheet and consent form to parents/carers who agreed to their child taking part in the ASPECTS assessments, to request their permission for us to access their child's ASQ-3 data, which is routinely completed at 2-years old and stored within an NHS Digital database.

6. Relevant practitioners within your setting will be asked to complete some short questionnaires/surveys and may be asked to participate in one or two interviews/focus groups during the project (separate consent would be sought for interviews/focus groups).



We will ask four settings who receive the Maths Champions programme to allow an assessor from A+ Education Ltd to visit for a day in October 2021 and again in June/July 2022 to complete the Early Childhood Environment Rates Scales-III (ECERS-3) and the Early Childhood Environment Rates Scales-Extended (ECERS-E). These are measures of nursery environment and provision and the ECERS-E has a specific focus on maths provision. If your nursery is selected to receive a visit, we will arrange a suitable date for the visits and you will receive feedback from ECERS-3 and ECERS-E following the final visit in June/July 2022.

Frequently asked questions

Who is running the research project? The EEF appointed an 'Evaluation Team' from York Trials Unit (YTU) and the Department of Education, at the University of York, and Durham University (DU) to run this project, which is led by Principal Investigators Hannah Ainsworth (YTU), Dr Lyn Robinson-Smith (YTU), and Victoria Menzies (DU). NDNA will deliver the Maths Champions programme to your setting.

Has the trial received ethical approval? The project has received ethical approval from the University of York Health Sciences Research Governance Committee. Separate ethical approval will be sought from an NHS Research Ethics Committee for exploring the accessibility and coverage of ASQ-3 data.

What will happen to data collected as part of the research project? All information collected as part of this research project will be processed and stored in accordance with the General Data Protection Regulation (2018) and the Data Protection Act (2018). A detailed data sharing agreement will be put in place between your setting and the Evaluation Team.

Who will children's data be shared with and why? For the purposes of this research, will we use children's names when communicating with you and any new settings that children attend, which we are informed about, in order to arrange ASPECTS assessments (but we won't use children's names in emails). The Centre for Evaluation and Monitoring (CEM) who host the ASPECTS assessment will collect children's name, date of birth, gender, year group and class/group.

For the purposes of this research, identifiable information about children will be shared with the Department for Education in order to make use of routinely collected information (this is known as 'matching'). The Department for Education can provide access to information about children's future educational development which is collected through the National Pupil Database (NPD).

To look at how the Maths Champions programme may impact on the long-term attainment of children, we will apply to the Department for Education to link to participating children's Early Years Foundation Stage Profile (EYFSP) results (completed at the end of Reception year) held within the NPD. To do this, identifiable child data provided by the setting (with consent of parents/carers) will be used to match to EYFSP data within the NPD. Specified members of the Evaluation Team will be granted access to this data within the Office for National Statistics Secure Research Service (ONS SRS) in order to conduct analyses. Further matching to the NPD and other datasets or administrative data may take place during subsequent research and/or after archiving. There will be no international data transfers outside of the EU.

At the end of the project, data will be submitted to the Office for National Statistics Secure Research Service (ONS SRS) for archiving in the EEF data archive (managed by FFT Education) and will include data only individually identifiable to the Department for Education. Anonymous data may be kept indefinitely by the Evaluation Team and potentially shared with other research teams.

For the purposes of research, identifiable child data provided by the setting may be shared with NHS Digital in order to access Ages and Stages Questionnaire (ASQ-3) data, held by NHS Digital, for children whose parent/carers have provided consent for this (there will be a separate parent/carer information sheet and consent form for this).

For further detailed information on how children's personal data will be collected, used, stored and reported, please read the parent/carer information sheets. All results will be anonymised so that no nurseries or individual children will be identifiable in the report or dissemination of any results.

Where can I find out the results of the Maths Champions research project? At the end of the project a final report, which does not identify any individuals or nurseries, will be made publically available on the EEF website (educationendowmentfoundation.org.uk) for anyone who is interested in the findings of the research.

Who do I contact if I have further questions?

Questions about the **Maths Champions programme**? Please contact NDNA:

Maths Champions Team
National Day Nurseries Association
National Early Years Enterprise Centre
Longbow Close
Huddersfield
HD2 1GQ

Email: MCstudy@ndna.org.uk
Tel: 01484 407078

Questions about the **research project**? Please contact the Evaluation Team:

Maths Champions II Evaluation Team
York Trials Unit
1st Floor, ARRC Building
University Of York
YORK
YO10 5DD

Email: ytu-mc2@york.ac.uk
Tel: 01904 321702

Interested in taking part? Next Steps:

If your setting would like to participate in the project, please read, complete, and sign the 'Memorandum of Understanding: Nursery Agreement' (MC II Main Trial MoU v3.1 20210317) and return this as soon as possible by email or post to the Maths Champions Team at NDNA (see above for contact details).

Maths Champions II Research Project

MEMORANDUM OF UNDERSTANDING: NURSERY AGREEMENT

Below we summarise the requirements of settings taking part in the research project. This form is to be completed by the nursery manager/head teacher. Please read these carefully and, if you are happy to take part, please initial beside each statement and complete the relevant sections overleaf.

1. We confirm we have read the Memorandum of Understanding (MC II Main Trial MoU v3.1 20210317) for the Maths Champions II research project.
2. We confirm we will nominate appropriate members of staff from our setting to be the Maths Champion and the Deputy Maths Champion, who will undertake online training and run the Maths Champions programme within the setting, if our setting is randomly allocated to follow the programme, and who will act as a point of contact for the Evaluation Team and NDNA.
3. We confirm our setting is committed to completing the Maths Champions programme if we are randomly allocated to follow the programme.
4. We agree to share with the Evaluation Team the number of 3-4 year old children that attend our setting (those who would be due to start school in September 2022) and attend nursery for a minimum of 15 hours per week.
5. We agree to distribute information sheets and consent forms to parent/carers of all eligible children, and facilitate the collection and return of at least 10 completed consent forms to the Evaluation Team (a courier collection will be arranged).
6. We agree to share with the Evaluation Team requested details about participating children, whose parents/carers have provided consent (a data sharing agreement will be put in place by the Evaluation Team detailing the specifics of this).
7. We agree to complete, or to facilitate a visit(s) by a research assistant to complete, the ASPECTS assessment with the relevant 3-4 year old children, whose parents/carers have provided consent, during September-October 2021.
8. We agree to facilitate a visit(s) by a research assistant to complete ASPECTS with relevant participating children, whose parents/carers have provided consent, during June-July 2022.
9. We agree to complete and return questionnaires and to consider participating in interviews/focus groups.
10. We agree to notify NDNA and the Evaluation Team, at the earliest opportunity, if our setting has any issues that could affect the continuation of the Maths Champion programme within our setting, if we are allocated to deliver the programme. If our setting chooses to withdraw from the Maths Champion programme, where possible we agree to still allow assessment data to be collected for the evaluation.
11. **We agree for this setting to take part in the Maths Champions II research project and accept the terms and conditions outlined in the Memorandum of Understanding (MC II Main Trial MoU v3.1 20210317).**

Nursery setting/school name: _____

Setting/school address: _____

Setting/school postcode: _____

Nursery manager/head teacher name: _____

Nursery manager/head teacher signature: _____ Date: ____/____/____

Email address: _____ Telephone number: _____

Name of nominated Maths Champion: _____

Email address: _____

Name of nominated Deputy Maths Champion: _____

Email address: _____

Is your setting part of a nursery chain or a multi-academy trust (please cross)? Yes No

Please estimate the number of 3-4 year olds you will have in your setting during the 2021/22 academic year who will attend for at least 15 hours per week and start Reception class in September 2022: _____

Please select the provision type of your nursery setting (please cross 1 box):

Private/independent

Voluntary

Nursery class in a primary/infant school
(state funded)

Maintained nursery school or
children's centre

How many nursery staff in your setting have at least a degree-level/level 6 qualification in Early Years (e.g. Related Honours degree, Early Years Teacher, Qualified Teacher Status)? _____

Do you anticipate that your setting would have capacity to complete ASPECTS assessments (taking about 10 minutes per child) in September - mid-October 2021 with 10 participating children (please cross 1 box)?

Yes

No, please send a research assistant to complete these

Thank you for agreeing to take part in this research project. Please return this form to MCstudy@ndna.org.uk or by post to the below address as soon as possible:

Maths Champions Team
National Day Nurseries Association
National Early Years Enterprise Centre
Longbow Close
Huddersfield, HD2 1GQ

Maths Champions II Research Project

INFORMATION FOR PARENTS/CARERS

Why is this research important?

Your child's nursery is taking part in the Maths Champions II research project. You are receiving this information sheet as your child is 3 or 4 years old, attends nursery for at least 15 hours per week and is due to start school in September 2022. This information sheet provides you with details about what the research project will involve for you and your child.

Previous research tells us that maths is one of the areas where children perform least well and that children who don't have a good start in developing mathematical skills continue to be behind throughout life. Maths Champions is a programme that has been developed by the National Day Nurseries Association (NDNA; ndna.org.uk/) with the aim of providing nursery staff with further training on how to help children develop their mathematical skills through play within nursery.



How will we find out if the Maths Champions programme works?

The Education Endowment Foundation (EEF) have funded the Evaluation Team (who are based at the University of York and Durham University) to run this research project which will help us understand how the Maths Champions programme may support children's development. As part of the research project, your child's nursery may use the Maths Champions programme.

To find out how well the programme works, some participating nurseries will use the programme this year and some nurseries will not. This is decided randomly by a computer. Your child's nursery care and education will continue as normal in nurseries who do not use the programme.

The Evaluation Team will compare children's assessments between nurseries that have used the programme and those that have not. **This type of research is called a randomised controlled trial.**

What does the Maths Champions programme involve?

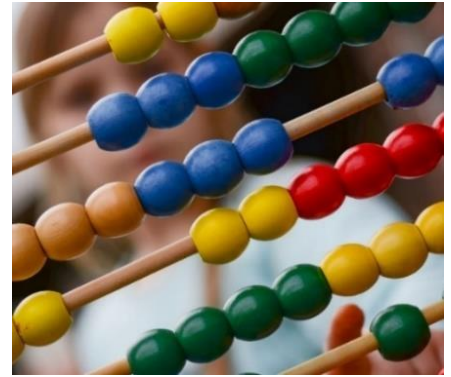
If your child's nursery is randomly chosen to use the Maths Champions programme, your child's nursery will appoint a member of staff as a 'Maths Champion' and a member of staff as a 'Deputy Maths Champion'. Together the Champions will run the programme in your child's nursery. From October 2021, the nominated Champions will complete online training, have access to lots of online resources, and will work with all the staff within the nursery to improve maths practice for all children, with lots of support from NDNA. The Maths Champions programme will run for 7-8 months, until June 2022.

You can ask the nominated Champions any questions you may have about the programme. If you would like more information on NDNA's Maths Champions programme, please contact NDNA using the details at the end of this information sheet or visit: ndna.org.uk/childcare-training-maths-champions

What does the research project involve for my child?

We would like your child to complete a short, child-friendly assessment in August/September/October 2021 and again in June/July 2022. The assessment is called ASPECTS and will tell us about their emerging maths and language skills. Children tend to enjoy doing ASPECTS as a computer tells a story and then asks the child to answer questions about it. It usually takes about 10 minutes. If your child does not want to do ASPECTS on the day, they do not have to. Your child's nursery will be able to share your child's ASPECTS feedback with you if you want. For more information, visit: cem.org/aspects.

- Around August/September/October 2021: your child will complete ASPECTS with a member of nursery staff, most likely their 'key worker' or with a research assistant from the Evaluation Team. We talk more about research assistants below.
- Around June/July 2022: your child will complete ASPECTS with a research assistant from the Evaluation Team. If your child moves to a different nursery before June/July 2022, we may arrange for a research assistant to visit their new setting to complete ASPECTS with them. We will ask your child's nursery to let us know which new nursery your child has moved to, but if they don't know we will contact you to find out.



All research assistants who sit with your child to complete ASPECTS have:

- Experience working with young children.
- Completed safeguarding and data protection training,
- Undergone all the necessary checks including a recent Disclosure and Barring Service (DBS) certificate check.

So we can see if the Maths Champions programme results in any longer-term changes to education, we will also access your child's Early Years Foundation Stage Profile feedback. This feedback is collected by reception teachers at the end of the first year school. We will do this by applying to a government database which stores this information. We explain more about this in the Frequently Asked Questions section.

What information is collected about me and my child?

We would like to collect information about your child from your child's nursery, including your child's:

- Full name
- Date of birth
- Gender
- Home postcode
- Attendance at nursery per week
- Early Years Pupil Premium status
- Early Years Foundation Stage check completed at 2 years old (if available)
- Ages & Stages Questionnaire (ASQ-3) usually completed when children are 2 years old (if available)
- Eligibility for/receipt of funded childcare at 2 years old
- ASPECTS assessment reports
- New nursery destination, if applicable
- Planned school destination
- If English is an additional language (EAL)

If your child's nursery does not have any of this information we will contact you to collect it, so we are requesting your contact information on the consent form for this purpose. None of the information collected about your child as part of this research project will affect your child's place at nursery. The Frequently Asked Questions section below tells you more about how we will use, store and share the information collected in the research project.

We will use Qualtrics Survey Software to collect your information and consent and possibly to collect information about your child in the future if your child's nursery is unable to provide it.



In order for the ASPECTS assessment to be conducted, the Centre for Evaluation and Monitoring (CEM) who host the assessment will collect your child's name, date of birth, gender, year group and class/group. Information on CEM's use of personal data can be found in their Privacy Notice: cem.org/privacy-notice

What do I need to do now?

If you are happy for your child to take part in the Maths Champions II research project, please complete the Parent/Carer Consent Form as soon as possible. Your nursery will provide you with a link to an electronic consent form or a paper version of the consent form.

If you do not complete a valid consent form, assessments will not be carried out with your child for the evaluation and no information about your child will be shared with the Evaluation Team. All children at nurseries who are chosen at random to receive the Maths Champions programme will be involved in Maths Champions as nursery staff will be using the programme across the whole nursery, even if you choose for them not to take part in the assessment elements of the research project.



Frequently Asked Questions

Is my child's participation in the research project confidential? All information collected will be treated with the strictest confidence and will be stored in compliance with the General Data Protection Regulation (GDPR) and Data Protection Act 2018. We will not use your name, your child's name or the name of participating nurseries in any report arising from the research.

Can we withdraw from the project? If you complete and return/submit a consent form and then change your mind, you are free to withdraw your child at any time by telling your child's nursery, who will communicate this to us, or by contacting us directly using the contact details provided.

Questions or concerns: If you have any questions about this information sheet or concerns about how your child's data is being processed, please contact the Evaluation Team at ytu-mc2@york.ac.uk in the first instance. You may also contact the University of York's Data Protection Officer at dataprotection@york.ac.uk.

What is the Education Endowment Foundation (EEF)? The EEF is an independent charity founded in 2011 with funding from the Department for Education. Its aim is to build the evidence for what works in raising attainment. This means demonstrating the impact of its projects on children's attainment throughout school, with some projects also evaluating post 16 and early years attainment. For more information, visit: educationendowmentfoundation.org.uk/

Who is the Data Controller? For the purposes of this project, the University of York is the data controller as defined in the GDPR. Once the data has been submitted to the Office for National Statistics Secure Research Service (ONS SRS) for archiving in the EEF data archive and passed quality checks, the EEF holds data controller responsibility.

How do we keep your data and your child's data secure? The University takes information security extremely seriously and has implemented appropriate technical and organisational measures to protect data. Access to information is restricted on a need-to-know basis and security arrangements are regularly reviewed to ensure their continued suitability. Further information about how we will use the information provided about your child can be found at: york.ac.uk/healthsciences/research/trials/trials-gdpr/

Under what legal basis do we process your data and your child's personal data? Personal data will be processed under

Article 6 (1) (e) (*Processing necessary for the performance of a task carried out in the public interest*) and Special Category data under Article 9 (2) (j) (*Processing necessary for ... scientific ... research purposes*) of the General Data Protection Regulation (2018).

How long will we keep your data and your child's data? All individually identifiable data held by the Evaluation Team will be destroyed 5 years after the end of the study (2028). Data submitted to the ONS SRS archive will include data only individually identifiable to the Department for Education (who are a government department responsible for children's services and education) and is kept indefinitely for the purposes of future research.

Who will your data and your child's data be shared with and why? Your information and contact details will only be used by the Evaluation Team for the purposes of this research project. For the purposes of this research, we will use your child's name when communicating with their current nursery and any new nursery your child attends, which we are informed about, in order to arrange ASPECTS assessments. We will use Qualtrics Survey Software to collect your information and consent and possibly to collect information about your child in the future if your child's nursery is unable to provide it. The Centre for Evaluation and Monitoring (CEM) who host the ASPECTS assessment will collect your child's name, date of birth, gender, year group and class/group.

For the purposes of this research, the Evaluation Team will share identifiable information about your child (e.g. name, date of birth, gender, home postcode, school destination, EAL status) with the Department for Education in order to link to your child's Early Years Foundation Stage Profile (EYFSP) assessment, which is completed by their teacher at the end of the first year at school and stored within the National Pupil Database (NPD). With the information we provide, the Department for Education will 'match' your child's details to their EYFSP assessment, and will allow specified members of the Evaluation Team to access this information within the ONS SRS to conduct analyses. The Evaluation Team will upload other evaluation data collected (e.g. assessment scores) to the ONS SRS for the analysis. This will help us understand if the Maths Champions programme has any long-term effects on children's education. Further matching to the NPD and other datasets or administrative data may take place during subsequent research and/or after archiving.

At the end of the research project, data will be submitted to the ONS SRS for archiving in the EEF data archive (managed by FFT Education) and will include data only individually identifiable to the Department for Education. It may be shared by FFT/EEF with other parties after archiving. Anonymous data may be kept indefinitely by the Evaluation Team and potentially shared with other research teams or archiving organisations.

What rights do you have in relation to your data and your child's data? Under the GDPR, you have a right of access to your data and your child's data, a right to rectification, erasure (in certain circumstances), restriction, objection or portability (in certain circumstances). Further information can be found at: york.ac.uk/healthsciences/research/trials/trials-gdpr/research-participants/

Right to complain: If you are unhappy with the way the University has handled your data or your child's personal data, you have a right to complain to the Information Commissioner's Office. For information on reporting a concern to the Information Commissioner's Office, see ico.org.uk/concerns. If you would like to make a general complaint about this study, you can contact Dr Louise Tracey (louise.tracey@york.ac.uk) who is not directly involved in this research.

Has the evaluation received ethical approval? The University of York Health Sciences Research Governance Committee is reviewing the ethical standards of this project. The project has received ethical approval from the committee for the aspects of the research detailed in this information sheet.

Where can I find out the results of the evaluation? The Evaluation Team have to produce a final evaluation report. This is due in April 2023 and will be published by the EEF on their website (educationendowmentfoundation.org.uk); this final report will not name any nurseries/schools or individual children.

Who do I contact if I have further questions?

NDNA contact details:

Maths Champions Team
National Day Nurseries Association
National Early Years Enterprise Centre
Longbow Close
Huddersfield
HD2 1GQ

Email: MCstudy@ndna.org.uk
Tel: 01484 407078

Evaluation Team contact details:

Maths Champions II Evaluation Team
York Trials Unit
1st Floor, ARRC Building
University Of York
YORK
YO10 5DD

Email: ytu-mc2@york.ac.uk
Tel: 01904 321702

Maths Champions II Research Project

CONSENT FORM FOR PARENTS/CARERS

If you are happy for your child to participate in the Maths Champions II Research Project, please read each of the following statements and, if you agree to them, please initial the boxes, fill in the other details and return this form to your child's nursery setting.

Please Initial

1. I confirm that I have read and understood the information sheet for parents/carers (V1.4 20210709) for the Maths Champions II Research Project and have had the opportunity to ask any questions about the project and any questions have been answered to my satisfaction. initials

2. I understand that participation is voluntary and that I can withdraw my child from the research project at any time without giving a reason, and without my child's nursery provision being affected, by telling my child's nursery or contacting the Evaluation Team. initials

3. I agree for my child's nursery to provide the Evaluation Team with information about my child outlined in the information sheet. initials

4. I agree to the Evaluation Team holding copies of this consent form and my contact details to allow them to contact me for details about my child if my child's nursery is not able to do so as outlined in the information sheet for parents/carers (V1.4 20210709). initials

5. I understand that any information collected for this study, including personal data, will be kept confidential and stored securely. initials

6. I agree for my child to take part in the assessments, outlined in the information sheet, while they are at nursery. initials

7. As part of the ASPECTS assessment, I understand that the Centre for Evaluation and Monitoring (CEM) at Cambridge Assessment will collect identifiable information about my child. initials

8. I understand that the Evaluation Team will share identifiable information about my child with the Department for Education for the purposes of this research, including to link to information about my child held within the National Pupil Database, as outlined in the information sheet for parents/carers. initials

9. I understand that information collected about my child in this research study will be submitted to the Office for National Statistics Secure Research Service (ONS SRS) for analysis and archiving purposes as detailed in the information sheet for parents/carers. initials

10. I understand that anonymous data may be kept indefinitely by the Evaluation Team and potentially shared with other research teams or archiving organisations. initials

11. **I agree that my child and I will take part in the Maths Champions II Research Project.** initials

In addition to the above statements, please initial the below box if you agree with the following optional statement. Your participation in this research project will not be affected if you do not agree with this statement.

initials

I am happy to receive information about related further research projects.

Please complete the below information in block capitals:

Child's first name: _____

Child's surname: _____

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Child's Date of Birth:

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Child's nursery setting: _____

Was your child *eligible* to receive government funded childcare at 2 years old? (you may have received a letter from your local council telling you about this) (please cross)?

Yes No Don't Know

Did your child *receive* up to 15 hours government funded childcare at 2 years old (please cross)?

Yes No

Parent/Carer Contact Telephone Number: _____

Parent/Carer Contact Email Address: _____

Print name

Signature

Full Name of Parent/Carer (*please print*)

Signature of Parent/Carer

d d / m m / y y y y

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Today's Date

Thank you for agreeing for your child to take part in this research project. Please return this form to your child's nursery setting as soon as possible.

Nursery Setting ID:
(nursery setting to add)

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Child ID:
(for office use only)

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Information for Providers – Maths Champions Programme

National Day Nurseries Association (NDNA) is delighted to invite applications from early years' providers to take part in a research trial (funded by the Education Endowment Foundation partnered with Department for Education) to evaluate the Maths Champions programme. The team of researchers running the research trial are based at University of York and Durham University.

Maths Champions is a programme developed by NDNA which aims to improve the maths skills of children in early years settings by training 'Maths Champions' within nurseries. The Maths Champion should be a senior staff member who is responsible for the quality of maths provision in your setting, and for building the confidence and skills of the practitioners working with children. Participating nurseries will nominate a designated lead as Maths Champion. They will have access to online CPD, resources, and one-to-one advice.

What does the Maths Champions programme involve?

Nominating a Maths Champion (graduate or level 3 in early years leading practice in the setting) and Deputy Maths Champion (qualified to a minimum of level 3 in early years) who will complete:

- An online induction to the programme
- A series of short online courses including developing mathematical confidence in early years, effective coaching, number and shape, space and measure taking up to 2 hours each
- Working with the Maths Champion programme lead from NDNA to audit current practice and plan for improvement
- Ten core activities with children in your setting.

What are the benefits for my nursery?

ALL settings who take part will receive £500.

A previous [study](#) of Maths Champions found a potentially positive impact on children's maths attainment.

The Maths Champions programme is fully funded and access is entirely online so there is no cost for releasing staff. The programme will commence in September 2021 once all parent/carer forms are complete and you will have 12 months access to the online programme, if randomly allocated to receive it.



What does the research trial involve?

As part of the trial, 60 settings will be chosen at **random** to receive the Maths Champions programme for **FREE**, the other 60 will continue as normal and form the *important* 'control group'. Randomly selecting which settings receive the programme is essential as it is the best way to find out the impact the programme has on children's attainment. Regardless of whether a setting randomly receives the intervention or the control group, **ALL** settings will:

- Inform and gain consent from parent/carers for children's participation in the research trial
- Share setting and child information with the research team.
- Work with the research team to complete assessments (taking 10 minutes per child) in September 2021 and June 2022.

Who can take part?

Private, voluntary, independent providers based on non-domestic premises/maintained or school nurseries providing nursery provision for 3 and 4 year olds.

Settings wishing to participate cannot currently be part of other EEF trials, the DfE Early Years Professional Development Programme or have previously accessed Maths Champions.

Settings must be able to commit to the expectations of the programme and evaluation.

For further information or to register* your interest, please email MCStudy@ndna.org.uk or complete the expression of interest form [here](#) before March 31st 2021.

Appendix 2 – Research Instruments (Main Evaluation)

- MC II_Initial Interview Guide – developer interview_v1.0 20200402
- MC II_Interview Guide_Maths Champion_v1.0 20201215
- MC II_Interview Guide_Deputy Maths Champion_v1.0 20201215
- MC II_Interview Guide_Manager or Leadership_v1.0 20201215
- MC II_Interview Guide_Practitioner_v1.0 20201215
- MC II_End Point Interview Guide_Developer Interview_v2.0 20201213

MC II_Initial Interview Guide – developer interview_v1.0 20200402

Introduction

- Brief on purpose of the interview in terms of the evaluation.
- Explain that any questions that people don't want to answer just say so and we will skip on.
- Encourage any questions from NDNA team about the interview and the process
- Explain that we would like to record the interview and get verbal consent to do this before starting.

Changes made to the Maths Champions programme for the trial

- Have you made any changes to the way the Maths Champions programme is being delivered just to suit the research pilot/trial?
 - Prompt: E.g. Changes to timelines, length of intervention delivery, what you are asking nurseries to do, pupil assessment (induction mentioned that this was different), delivery areas (more deprived here?), target grouping (only private nurseries)
- Are/were there any aspects of the programme that you would like to change but haven't been able to?
- How did you find delivering the induction online, as opposed to face to face? What did you consider were the strengths, and barriers, if any?
- Did you receive any feedback from settings regarding the online induction?
- For future online induction sessions, would you make any changes?
- Have you found a difference in programme set-up between PVI and School based nurseries?

Initial Response of Maths Champions Nurseries

Setting recruitment and p/c consent

- Can you describe the full recruitment process for the pilot trial?
- Did you find any of the setting-level inclusion criteria to be problematic during recruitment?
- What has been the initial response of the settings taking part in the programme this year? (pilot/main trial).
- Have you found any difference between recruiting PVIs versus school-based settings? Any lessons learnt that can be applied to recruiting during the main trial?
- What did you feel were the strengths in your recruitment process?
- Were there any difficulties and barriers in setting recruitment this year? If any, what were they and are there any strategies that would be helpful to increase the setting recruitment rate?
- Would you make any changes to your recruitment processes for the main trial?
- Did you need to provide any support to settings with regards to completing the Data Sharing Agreement (between York and the setting) or the EULA (end-user licence agreement with CEM for use of ASPECTS)?
- Did you need to provide any support to settings for gathering parent/carer consent for children to take part in the evaluation of the trial?
- Did you get any feedback from settings with regards to gathering parent/carer consent?

Barriers to Maths Champions delivery

- Do you feel there have been any barriers to the programme being delivered as you would have wanted (in an ideal world)?
 - If so, what are these?
- What barriers are nurseries flagging up as possible issues going forward?
 - Staffing concerns?
 - Technology?
 - Time?
- What issues do you expect nurseries to experience in delivery of the project through the year – from previous experience?

Conditions for the Success of MC Programme

- What do you think are the necessary/desirable conditions for the success of the MC programme?

MC II Interview Guide_Maths Champion_v1.0 20201215

Introduction

- Brief on purpose of the interview in terms of the evaluation.
- Explain that any questions that they don't want to answer just say so and we will skip on.
- Encourage any questions from interviewee about the interview and the process.
- Explain that we would like to record the interview and get verbal consent to do this before starting.

Background

- Can you tell us a bit about your background?
 - How long you have worked at the nursery?
 - How long have you worked within nursery settings generally?

Heading the Maths Champions Programme

- How did you become involved in the Maths Champions programme?
- How have you found implementing the programme? Have you enjoyed it, has it been challenging?
- How helpful did you find the MC programme materials and resources?
- How much time did you spend daily or weekly on the MC programme?
 - Preparing for it
 - Delivering it
 - When did you spend this time (Prompt: during the working day, at home?)
- Did you find the workload associated with the MC programme manageable?
- What aspects of the MC programme (if any) were the most useful?
 - Was there anything that wasn't useful?
- Have you experienced any difficulties with being able to do the MC programme? This can be in terms of accessing the training or materials, doing the MC activities in the nursery, impact of Covid-19 or anything else.

Disseminating the MC programme to staff

- How have you gone about disseminating the MC programme and resources to the staff within your nursery?
- How engaged are the staff in the MC programme?

Role of the Deputy Math Champion (DMC)

- How did you perceive your role of the Deputy Math Champion (DMC)?
- How have you worked with the MC on disseminating the MC programme in your nursery?
- Were there any occasions that you had to step in the MC role in your nursery? If yes, what was the reason and for how long?
- Were there any occasions that someone else had to step in your DMC role? If yes, what was the reason and for how long?

Nursery Maths Practice

- How closely did you follow the action plan you developed at the beginning of the programme?
- How often are you incorporating the MC resources into teaching within a normal day within the nursery? Any examples?
 - Prompt: resources, play activities (inside/outside), standalone/incorporated into tasks
- Do you find that you are delivering more maths activities since starting the programme?
- Are you feeling more or less confident in your own maths skills since starting the MC programme?
- How often were you meeting with the practitioners to discuss the MC programme implementation in your nursery?
- Were there any additional support and resource available for nursery staff in maths practice?
- With regards to children observation, how did you identify those six children to do observation throughout the programme?

- Were you familiar with the tool that has been used to track and monitor the development of these children?
- Were there any difficulties in tracking these children?

Support from NDNA

- Do you feel the level of support provided by NDNA been appropriate to support your setting accessing the programme?
 - If not, would less or more be better?
 - What support would help?
- Is there anything that you think would improve the MC Programme more generally?

Costs of the Programme

- Has any additional cover had to be provided to enable you to complete aspects of the Maths Champions programme so far?
- Have there been any additional costs e.g. new resources necessary to implement the programme?

Monitoring Success

- Do you think that the MC programme is having any benefits:
 - For you?
 - For the children?
 - For the nursery?

Conditions for the Success of MC Programme

- What appears to be the necessary conditions for the success of MC programme?

Impacts of the COVID-19 pandemic

- How has the delivery of the MC programme been impacted by the COVID-19 pandemic?
- Any other COVID-19 observations?

Other Professional Development Opportunities (if time)

- Have you done anything similar to the Maths Champions programme?

MC II Interview Guide_Deputy Maths Champion_v1.0 20201215

Introduction

- Brief on purpose of the interview in terms of the evaluation.
- Explain that any questions that they don't want to answer just say so and we will skip on.
- Encourage any questions from interviewee about the interview and the process.
- Explain that we would like to record the interview and get verbal consent to do this before starting.

Background

- Can you tell us a bit about your background?
 - How long you have worked at the nursery?
 - How long have you worked within nursery settings generally?

Heading the Maths Champions Programme

- How did you become involved in the Maths Champions programme?
- How have you found implementing the programme? Have you enjoyed it, has it been challenging?
- How helpful did you find the MC programme materials and resources?
- How much time did you spend daily or weekly on the MC programme?
 - Preparing for it
 - Delivering it
 - Was this during the working day or in your own time?
- Did you find the workload associated with the MC programme manageable?
- What aspects of the MC programme (if any) were the most useful?
 - Was there anything that wasn't useful?
- Have you experienced any difficulties with being able to do the MC programme? This can be in terms of accessing the training or materials, doing the MC activities in the nursery, impact of Covid-19 or anything else.

Disseminating the MC programme to staff

- How have you gone about disseminating the MC programme and resources to the staff within your nursery?
- How engaged are the staff in the MC programme?

Nursery Maths Practice

- How closely did you follow the action plan you developed at the beginning of the programme?
- How often are you incorporating the MC resources into teaching within a normal day within the nursery? Any examples?
 - Prompt: resources, play activities (inside/outside), standalone/incorporated into tasks
- Do you find that you are delivering more maths activities since starting the programme?
- Are you feeling more or less confident in your own maths skills since starting the MC programme?
- How often were you meeting with the practitioners to discuss the MC programme implementation in your nursery?
- Were there any additional support and resource available for nursery staff in maths practice?

Role of the Deputy Math Champion (DMC)

- How did you perceive the role of the Deputy Math Champion (DMC)?
- Was it helpful to have a DMC?
- How have you worked with the DMC on disseminating the MC programme in your nursery?
- How often were you meeting with the DMC to discuss the MC programme implementation?
- Were there any occasions that the DMC had to step in the MC role in your nursery? If yes, what was the reason and for how long?
- What are the impacts of having a DMC in your nursery?
- Was there anything that can be improved?

- What appears to be the necessary conditions for the success of MC programme?

Support from NDNA

- Do you feel the level of support provided by NDNA been appropriate to support your setting accessing the programme?
 - If not, would less or more be better?
 - What support would help?

Costs of the Programme

- Has any additional cover had to be provided to enable you to complete aspects of the Maths Champions programme so far?
- Have there been any additional costs e.g. new resources necessary to implement the programme?

Feedbacks on the child recruitment strategy

- How was the child recruitment process for MC programme in your setting?
 - Were there any difficulties in recruiting children and families for this programme? If yes, what were they and any strategies that could be helpful?

Monitoring Success

- Do you think that the MC programme is having any benefits:
 - For you?
 - For other staff?
 - For the children?
 - For the nursery?

Conditions for the Success of MC Programme

Impacts of the COVID-19 pandemic

- How has the delivery of the MC programme been impacted by the COVID-19 pandemic?
- Any other COVID-19 observations?

Other Professional Development Opportunities (if time)

- Have you done anything similar to the Maths Champions programme?

MC II Interview Guide_Manager or Leadership_v1.0 20201215

Introduction

- Brief on purpose of the interview in terms of the evaluation.
- Explain that any questions that they don't want to answer just say so and we will skip on.
- Encourage any questions from interviewee about the interview and the process.
- Explain that we would like to record the interview and get verbal consent to do this before starting.

Background

- Can you tell us a bit about your background?
 - How long you have worked at the nursery?
 - How long have you worked within nursery settings generally?

The Maths Champions Programme

- What attracted your nursery to participate in the MC programme?
- How has your nursery chosen the Math Champion (MC) and Deputy Math Champion (DMC) for the MC programme?
- How engaged are the staff in the MC programme?
- Have you experienced any difficulties with being able to do the MC programme?

Role of the Math Champion (MC) and Deputy Math Champion (DMC)

- How did you perceive the role of the Math Champion (MC) Deputy Math Champion (DMC) and in your nursery?
- What are the impacts of having a MC and a DMC?
- Were there any occasions that the DMC had to step in the MC role in your nursery? If yes, what was the reason and for how long?
- Was there anything that can be improved?

Costs of the Programme

- Has any additional cover had to be provided to enable you to complete aspects of the Maths Champions programme so far?
- Have you had to pay for staff cover during the programme as a result of the programme requirements?
- Have there been any additional costs e.g. new resources necessary to implement the programme?

Monitoring Success

- Do you think that the MC programme is having any benefits:
 - For you?
 - For the children?
 - For the nursery?

Feedbacks on the child recruitment strategy

- How was the child recruitment process for MC programme in your setting?
 - Were there any difficulties in recruiting children and families for this programme? If yes, what were they and any strategies that could be helpful?

Impacts of the COVID-19 pandemic

- How has the delivery of the MC programme been impacted by the COVID-19 pandemic?
- Any other COVID-19 observations?

Other Professional Development Opportunities (if time)

- Have you done anything similar to the Maths Champions programme?

MC II Interview Guide_Practitioner_v1.0 20201215

Introduction

- Brief on purpose of the interview in terms of the evaluation.
- Explain that any questions that people don't want to answer just say so and we will skip on.
- Encourage any questions from interviewee about the interview and the process.
- Explain that we would like to record the interview and get verbal consent to do this before starting.

Background

- Can you tell us a bit about your background?
 - How long you have worked at the nursery?
 - How long have you worked within nursery settings generally?

The Maths Champions Programme

- How have you found doing the programme? Have you enjoyed it, has it been challenging?
- Have you experienced any difficulties with being able to do the MC programme? This can be in terms of accessing the training or materials, doing the MC activities in the nursery, impact of Covid-19 or anything else.

Support from the MC and DMC

- How often have you been meeting with the MC and/or DMC to discuss the MC programme and/or maths practice?
 - How did they provide you with support for the MC programme or your maths practice?
- Was there anything that particularly helpful?
- Was there anything that can be improved?
- What different roles are the MC and the DMC doing for the project?

Nursery Maths Practice

- How closely did you follow the action plan that the nursery developed at the beginning of the programme?
- How often are you incorporating the MC resources into teaching within a normal day within the nursery? Any examples?
 - Prompt: resources, play activities (inside/outside), standalone/incorporated into tasks
- Do you find that you are delivering more maths activities or different kinds of maths activities since starting the programme?
- Are you feeling more or less confident are in your own ability to teach Early Years Maths since starting the MC programme?

Costs of the Programme

- How much, if any, extra time (over and above normal practice) has been needed for you to do what is needed for the Maths Champions programme? (prompt: setup phase, audits, planning, training, delivery, evaluation)
 - Has any additional cover had to be provided to enable you to complete aspects of the Maths Champions programme so far?
- Have there been any additional costs that you know about e.g. new resources necessary to implement the programme?

Monitoring Success (if time)

- Do you think that the MC programme is having any benefits:
 - For you?
 - For the children?
 - For the nursery?

Other Professional Development Opportunities (if time)

- Do you have access to other professional development opportunities within the nursery?
 - What kind of format do these take?
 - One day courses/in the nursery/online courses?
 - Have you done anything similar to the Maths Champions programme?

MC II_End Point Interview Guide_Developer Interview_v2.0 20201213

Introduction

- Brief on purpose of the interview in terms of the evaluation, i.e., to supplement Start Point interview with COVID-19 pandemic specific comments.
- Explain that any questions that people don't want to answer just say so and we will skip on.
- Encourage any questions from NDNA team about the interview and the process
- Explain that we would like to record the interview and get verbal consent to do this before starting.

Changes made to the Maths Champions programme due to the COVID-19 pandemic

- Have you made any changes to the way the Maths Champions programme is being delivered due to the pandemic?
- Are/were there any aspects of the programme that you would like to change but haven't been able to?
- How did you find delivering the induction online, as opposed to face to face? What did you consider were the strengths, and barriers, if any?
- Did you receive any feedback from settings regarding the online induction?
- For future online induction sessions, would you make any changes?
- Have you found a difference in programme set-up between PVI and School based nurseries?

Barriers to Maths Champions delivery due to the COVID-19 pandemic

- Do you feel there have been any barriers to the programme being delivered as you would have wanted (in an ideal world)?
- What barriers are nurseries flagging up as possible issues going forward?
- What issues do you expect nurseries to experience in delivery of the project through the year – from previous experience?
- Any other COVID-19 observations?

Delivery of new/revised MC programme

- Can you reflect on how delivery of the new/revised MC programme has gone this year?
- What feedback have you received this year?
- Are there any changes you might want to make for delivery for the main trial?

Appendix 3 – Recruitment Documents (Pilot)

Included in this Appendix:

- MC II_Pilot Information for Settings and MoU_v1.0 20191113
- MC II Pilot Study Information for Parents Carers 3-4yo V1.0 20191220
- MC II Pilot Study Information for Parents Carers 2yo V1.0 20191220
- MC II Pilot Parents Carers Consent Form 3-4yo V1.0 20191220
- MC II Pilot Parents Carers Consent Form 2yo V1.0 20191220

Evaluation of the Maths Champions Programme: Pilot Study

INFORMATION FOR SETTINGS

We are looking for 10 settings (private or school-based) to run the Maths Champions programme for FREE starting in January 2020 as part of a pilot study!

Findings from the Early Years Foundation Stage Profile results demonstrate that children perform least well in Maths (number and shape, space and measure) against other areas of learning. In response to this, the National Day Nursery Association (NDNA) (<https://www.ndna.org.uk/>) developed the 'Maths Champions' programme. The aim of the programme is to improve practice in maths across the whole setting by providing access to a range of online training, evaluative tools and resources to enhance maths practice and to build the confidence and skills of the practitioners working with young children. As part of the programme, setting's nominate a lead practitioner to be the 'Maths Champion' (wherever possibly this should be an early year's teacher, or graduate in early years. Where this is not possible the nominated Maths Champion should be responsible for leading the quality of the EYFS and qualified to level 3 as a minimum) and another to be a 'Deputy Maths Champion' (who is the room leader of 2, 3 or 4-year-old provision and also holds a level 3 qualification as a minimum). Together they are supported by NDNA and provided with an induction to the programme (two 2.5 hour online sessions), online training modules, one-to-one support by phone or web-conference, audit tools and a wide range of resources. These are used together to review, reflect on and improve practice. The Maths Champions programme is all online so there is no need for staff to leave the nursery.

Previous research (funded by the Education Endowment Foundation, EEF, who are the government-designated 'What Works' Centre for Education) found that children attending settings using the Maths Champions programme may make, on average, two months' additional progress in maths. Based on these findings, the EEF have funded a second, larger research trial to look further at how the impact the Maths Champions programme may have on children's outcomes. Before we start this large trial we are running a pilot study to explore changes that have been made to the Maths Champions programme since the first trial and help us understand the best ways we can collect information we require from nurseries, parents/carers and children. Below we explain more about what taking part in this pilot study would mean for your nursery.

What does your setting get for taking part in the pilot study?

- FREE access to the Maths Champions programme for 12 months.
- Participation in a research project that aims to improve the evidence-base surrounding early years learning.
- £500 cash (you will receive £250 in January 2020 and £250 in June 2020). This is to support your setting taking part in the evaluation.

Who can take part in the pilot study?

- Private, voluntary, independent or school-based settings.
- Settings willing to nominate two practitioners to undertake the role of 'Maths Champion' and the 'Deputy Maths Champions'.
- Settings with onsite access to a computer with internet connection.
- Settings who have not previously been involved with the Maths Champion intervention.
- Settings who have a 3 year old cohort, who are due to start reception in Sep 2020. *Settings do not need to have a 2 year old cohort, who are due to start reception in Sep 2021 or Sep 2022, in order to take part in the pilot.*
- Settings who are not currently taking part in the evaluation of the Department for Education's Early Years Professional Development Programme.
- Settings who agree to all study requirements outlined here and sign a data sharing agreement.

What will taking part in the pilot study involve?

As part of the pilot study we would like your setting to:

1. Hand-out information packs (containing parent/carer information sheets and consent forms) and questionnaires to parents/carers of children aged 2-4 years old. *Parents/carers do not have to provide consent for their child(ren) to take part in the pilot study if they do not want to and can withdraw their consent if they change their mind, however all children will receive the Maths Champions programme within your setting.*
2. Complete a short assessment in January 2020 called ASPECTS with children: whose parents have provided consent, are aged 3, attend nursery for at least 15 hours per week and will to move to reception class in September 2020. Children complete ASPECTS with an adult (e.g. their key worker or room leader) on a computer and it usually takes around 10 minutes. Children tend to enjoy using ASPECTS as the computer tells a story and then asks the children to answer questions about it. A 30-minute pre-recorded, online training session will be provided on how to set-up and run ASPECTS. ASPECTS is often used to complement practitioner's own observations, so you may find it useful that ASPECTS feedback (on a child's literacy, maths and motor development) will be available for you to view and can be printed for parents/carers after the assessment is complete. In June 2020, we will arrange for a research assistant to visit your setting to complete ASPECTS again with the same children. Research assistants have DBS clearance, have completed safeguarding training and are used to working with young children. The child's key worker will need to be available to chaperone during the assessment to ensure children feel comfortable. We will ask you to tell us when the children usually attend the nursery so that we can visit on a day(s) when the most children are there and liaise with you on the best day(s) to visit. So that we can complete ASPECTS we will ask you to provide us with information on a child's new nursery setting should they leave before June 2020 (parent/carers will have consented to allow us to do this). Further information on the ASPECTS assessment can be found here: <http://www.cem.org/early-years>. In order for the ASPECTS assessment to be conducted CEM will collect child name, date of birth, gender, year group and class. Information on CEM's use of personal data can be found in their Privacy Notice, available here: <https://www.cem.org/privacy-notice>
3. If possible complete the Ages and Stages Questionnaire-3 (ASQ-3) in January 2020 with children: whose parents/carers have provided consent, are aged 2 by 1st Jan 2020, attend nursery for at least 15 hours per week and are due to move to reception class in September 2021 or September 2022. The ASQ-3 is a paper questionnaire that captures child development and takes approximately 10-15 minutes to complete by a child's key worker. In February 2021, we will ask you to complete ASPECTS with these children, or

arrange for a research assistant to visit your setting to complete ASPECTS in which case the child's key worker will need to be available to chaperone during the assessment to ensure children feel comfortable. For more information on the ASQ-3, see <https://agesandstages.com>.

4. Provide information on the number of children within your setting attending for >15 hours per week. For all children whose parents/carers have provided consent to do so, we will also ask you to share children's personal information including forename, surname, date of birth, gender, home postcode, Early Years Pupil Premium status, attendance at nursery per week, new nursery destination (if they move during the study) (a data sharing agreement will be put in place detailing the specifics of this). Please see the 'parent information sheet' on how we will collect, store, use and report children's data.

Relevant staff within your setting will be asked to complete a short questionnaire and may be asked to participate in one or two interviews during the pilot study, separate consent would be sought for this.

Who is running the research trial? The EEF appointed an 'evaluation team' from York Trials Unit at the University of York (YTU) and Durham University (DU) to run this pilot study which is led by Principal Investigators Hannah Ainsworth (YTU), Dr Lyn Robinson-Smith (YTU) and Professor Carole Torgerson (DU).

Has the trial received ethical approval? The pilot study has received ethical approval from the University of York Health Sciences Research Governance Committee.

What will happen to data collected as part of the pilot study? All information collected as part of this pilot study will be processed and stored in accordance with the General Data Protection Regulation (2018) and the Data Protection Act (2018). A detailed data sharing agreement will be put in place between your setting and the evaluation team. For detailed information on how children's personal data will be collected, used, stored and reported please read the parent information and FAQ sheet. All results will be anonymised so that no nurseries or individual children will be identifiable in the report or dissemination of any results.

Where can I find out the results of the Maths Champions pilot study? At the end of the project a final report, which does not identify any individuals or nurseries, will be made publically available on the EEF website (<https://educationendowmentfoundation.org.uk>), for anyone who is interested in the findings of the research.

Who do you contact if you have any questions?

<p>Questions about the Maths Champions programme? Please contact NDNA:</p> <p>Maths Champions Team National Day Nurseries Association National Early Years Enterprise Centre Longbow Close Huddersfield HD2 1GQ Email: MCstudy@ndna.org.uk Telephone: 01484 407078</p>	<p>Questions about the research? Please contact the Evaluation Team:</p> <p>Maths Champions II Evaluation Team York Trials Unit 1st Floor, ARRC Building University Of York YORK YO10 5DD Email: ytu-mc2@york.ac.uk Tel: 01904 321702</p>
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Interested in taking part? Next Steps If your nursery would like to participate in the pilot study, please read, complete and sign the Memorandum of Understanding [MCII Pilot Study Information for Settings and MoU v1.0 20191113] and return to Maths Champions Team, National Day Nurseries Association, National Early Years Enterprise Centre, Longbow Close, Huddersfield, HD2 1GQ as soon as possible.

Evaluation of the Maths Champions Programme: Pilot Study

MEMORANDUM OF UNDERSTANDING

Below we summarise the requirements of nurseries taking part in the Pilot Study. Please read these carefully and, if you are happy to take part, please read and initial beside each statement and sign the relevant sections below.

- We confirm we have read the Information for Settings and Settings FAQ sheet [v1.0 20191113].
- We confirm the setting will nominate appropriate members of staff to be the Maths Champion and the Deputy Maths Champions, who will undertake online training, run the Maths Champions programme within the setting, and act as a point of contact for the Evaluation Team and NDNA.
- We confirm our setting is committed to completing the Maths Champions programme.
- We agree to share with the Evaluation Team the number of children who are due to start school in September 2020 and attend nursery for a minimum of 15 hours per week (Cohort 1) and the number of children who are due to start school in September 2021 or September 2020, are aged 2 by 1st Jan 2020, and attend nursery for a minimum of 15 hours per week (Cohort 2).
- We agree to distribute relevant information to parent/carers (information sheets, consent forms and questionnaire) of all eligible children and return them to the Evaluation Team.
- We agree to complete the ASPECTS assessment with all eligible 3 year old children whose parents have provided consent.
- We agree to complete the ASQ-3 with all eligible 2 year old children whose parents have provided consent.
- We agree to facilitate a visit(s) by a research assistant to complete ASPECTS with relevant children during June 2020.
- We agree to conduct or facilitate a visit(s) by a research assistant to complete ASPECTS with relevant children during February 2021.
- We agree to return completed questionnaires and to consider participating in scheduled interview(s).
- We agree to share with the Evaluation Team requested details about participating children whose parents have provided consent. A data sharing agreement will be put in place detailing the specifics of this.
- We agree to notify NDNA, as soon as possible, if there are any issues which could affect continuing the programme in your setting.



- o We agree to notify NDNA and the Evaluation Team, at the earliest opportunity, if the nursery has issues which could affect the continuation of the Maths Champion programme. If our setting chooses to withdraw from the Maths Champion programme, where possible we agree to still allow assessment data to be collected for the evaluation.
- o We agree for this setting to take part in the pilot study for the evaluation of the Maths Champions programme and accept the terms and conditions outlined in the Information for Nurseries and MoU document [v1.0 20191113].

Nursery setting name: _____ Nursery postcode: _____

Nursery Manager name: _____

Nursery Manager signature: _____ Date: ____/____/____

Email address: _____

Telephone number: _____

Name of nominated Maths Champion: _____

Email address: _____

Signature of nominated Maths Champion: _____

Name of nominated Deputy Maths Champion: _____

Email address: _____

Signature of nominated Deputy Maths Champion: _____

Thank you for agreeing to take part in this research. Please return this form to:

Maths Champions Team
 National Day Nurseries Association
 National Early Years Enterprise Centre
 Longbow Close
 Huddersfield
 HD2 1GQ

Evaluation of the Maths Champions Programme: Pilot Study

INFORMATION FOR PARENTS/CARERS OF 3-4 YEAR OLDS

Why is this research important?

Previous research tells us that maths is one of the areas where children perform least well and that children who don't have a good start in developing mathematical skills continue to be behind throughout life. Your child's nursery is taking part in this important pilot study and will deliver a programme developed by the National Day Nurseries Association (NDNA; ndna.org.uk/) called 'Maths Champions'.

The Maths Champions programme aims to help children to develop the mathematical skills they need and this is all done through play within their nursery.

The Education Endowment Foundation (EEF), a charity whose aim is to build the evidence for what works in raising attainment, have funded the Evaluation Team (University of York and Durham University) to conduct this research, to understand more fully how Maths Champions supports children's development. This pilot study will find out how we can best collect the information we require from nurseries, parents/carers and children before we conduct a much bigger research project.

You are receiving this information sheet as your child is 3 or 4 years old, attends nursery for at least 15 hours per week and is due to start school in September 2020. This information sheet provides you with details about what the pilot study will involve for you and your child.



What does the Maths Champions programme involve?



Your child's nursery will appoint a member of staff as a 'Maths Champion' and a member of staff as a 'Deputy Maths Champion'. Together the nominated Champions will run the Maths Champions programme in your child's nursery. From January 2020, the nominated Champions will complete online training, have access to lots of online resources, and will work with all the staff within the nursery to improve maths practice for all children, with lots of support from NDNA. The Maths champions programme will run for 12 months, until December 2020.

You can ask the nominated Champions any questions you may have about the programme. If you would like more information on NDNA's Maths Champions programme, please contact NDNA using the details at the end of this information sheet or visit: ndna.org.uk/childcare-training-maths-champions

What does the pilot study involve for my child?

We would like your child to complete two short, child-friendly assessments called ASPECTS which will tell us about their emerging maths and language development skills. Children tend to enjoy doing ASPECTS as a computer tells a story and then asks the children to answer questions about it. It usually takes about 10 minutes. If your child does not want to do ASPECTS on the day, they do not have to. Your child's nursery will be able to share your child's ASPECTS assessment with you if you want. For more information, visit: cem.org/aspects.

- Around January 2020: your child will complete ASPECTS with a member of nursery staff, most likely their 'key worker' or with a research assistant from the Evaluation Team.
- Around June 2020: your child will complete ASPECTS with a research assistant from the Evaluation Team. If your child moves to a different nursery before June 2020, we may arrange for a research assistant to visit their new setting to complete ASPECTS with them. We will ask your child's nursery to let us know which new nursery your child has moved to, but if they don't know we will contact you to find out.



All research assistants who sit with your child to complete ASPECTS have:

- Experience working with young children
- Completed safeguarding and data protection training and
- Undergone all the necessary checks including a recent Disclosure and Barring Service (DBS) certificate check.

What information is collected about me and my child?

We would like to collect information about your child from your child's nursery, including:

- your child's full name
- date of birth
- gender
- home postcode
- Early Years Pupil Premium status
- eligibility for funded childcare
- attendance at nursery per week
- ASPECTS assessment reports.
- new nursery destination if applicable



If your child's nursery does not have any of this information we will contact you to collect it, so we are collecting your contact information for this purpose. None of the information collected about your child as part of this pilot study will affect your child's place at nursery. The Frequently Asked Questions section below tells you more about how we will use, store and share the information collected in the project.

In order for the ASPECTS assessment to be conducted, the Centre for Evaluation and Monitoring (CEM) who host the assessment will collect your child's name, date of birth, gender, year group and class. Information on CEM's use of personal data can be found in their Privacy Notice: cem.org/privacy-notice

What do I need to do now?

If you are happy for your child to take part in the pilot study of Maths Champions, please complete the attached Parent/Carer Consent Form and return it to your child's nursery as soon as possible.

If you do not return a valid consent form, assessments will not be carried out with your child for the pilot study evaluation and no information about your child will be shared with the Evaluation Team. All children at participating nurseries will be involved in Maths Champions even if you choose for them not to take part in the research elements of the pilot study.

Frequently Asked Questions

Is my child's participation in the research confidential? All participant data will be treated with the strictest confidence and will be stored in compliance with the General Data Protection Regulation (GDPR) and Data Protection Act 2018. We will not use your name, your child's name or the name of participating nurseries in any report arising from the research.

Can we withdraw from the project? If you complete and return a consent form and then change your mind you are free to withdraw your child at any time by telling your child's nursery, who will then communicate this with the Evaluation Team, or by contacting us directly using the contact details provided. If you would prefer your child NOT to take part in any project assessments, or their data not to be processed as above, please DO NOT return a completed and signed Consent Form.

Questions or concerns: If you have any questions about this information sheet or concerns about how your child's data is being processed, please contact the evaluation team at ytu-mc2@york.ac.uk in the first instance. You may also contact the University of York's Data Protection Officer at dataprotection@york.ac.uk.

What is the Education Endowment Foundation (EEF)? The EEF is an independent charity founded in 2011 with funding from the Department of Education. Its aim is to build the evidence for what works in raising attainment. Ultimately, this means demonstrating the impact of its projects on children's attainment at Key Stage 1, Key Stage 2 and GCSE, with some projects now also evaluating impact on attainment post 16 and the early years. More information can be found at: educationendowmentfoundation.org.uk/

Who is the Data Controller? For the purposes of this project, the University of York is the data controller as defined in the GDPR. Once the data has been submitted to the Office for National Statistics (ONS) for archiving in the EEF data archive and passed quality checks, the EEF holds data controller responsibility for the data.

How do we keep your data and your child's data secure? The University takes information security extremely seriously and has implemented appropriate technical and organisational measures to protect data. Access to information is restricted on a need-to-know basis and security arrangements are regularly reviewed to ensure their continued suitability. Further information about how we will use the information provided about your child can be found at: york.ac.uk/healthsciences/research/trials/trials-gdpr/

Under what legal basis do we process your data and your child's personal data? Personal data will be processed under Article 6 (1) (e) (*Processing necessary for the performance of a task carried out in the public interest*) and Special Category data under Article 9 (2) (j) (*Processing necessary for ... scientific ... research purposes*) of the General Data Protection Regulation (2018).



How long will we keep your data and your child's data? All individually identifiable data held by the evaluation team will be destroyed 5 years after the end of the study (2027). Data submitted to the ONS archive will include individually identifiable data and is kept indefinitely for the purposes of future research.

Who will your data and your child's data be shared with and why? Your information and contact details will only be used by the Evaluation Team for the purposes of this project. For the purposes of future research, all the information collected about your child in this research project will be shared by the Evaluation Team, with the Department for Education, the EEF's archive manager and, in an anonymised form, with the Office for National Statistics and potentially other research teams.

Identifiable information about your child will be shared with the Department for Education in order to collect routinely collected information about your child (this is known as 'matching'). The Department for Education can provide information about your child's future educational development which is collected through the National Pupil Database. Further matching to the National Pupil Database and other administrative data may take place during subsequent research. There will be no international data transfers outside of the EU.

What rights do you have in relation to your data and your child's data? Under the GDPR, you have a right of access to your data and your child's data, a right to rectification, erasure (in certain circumstances), restriction, objection or portability (in certain circumstances). Further information can be found at: york.ac.uk/healthsciences/research/trials/trials-gdpr/research-participants/

Right to complain: If you are unhappy with the way the University has handled your data or your child's personal data, you have a right to complain to the Information Commissioner's Office. For information on reporting a concern to the Information Commissioner's Office, see ico.org.uk/concerns. If you would like to make a general complaint about this study, you can contact Dr Louise Tracey (louise.tracev@york.ac.uk) who is not directly involved in this research.

Has the evaluation received ethical approval? The University of York, Health Sciences Research Governance Committee is reviewing the ethical standards of this project. The project has received ethical approval from the committee for the aspects of the research detailed in this information sheet.

Where can I find out the results of the evaluation? The evaluation team have to produce a final evaluation report. This is due in January 2022 and will be published by the EEF on their website (educationendowmentfoundation.org.uk); this final report will not name any schools or individual children.

Who do I contact if I have further questions?

NDNA contact details:	Evaluation Team contact details:
Maths Champions Team National Day Nurseries Association National Early Years Enterprise Centre Longbow Close Huddersfield HD2 1GQ Email: MCstudy@ndna.org.uk Tel: 01484 407078	Maths Champions II Evaluation Team York Trials Unit 1st Floor, ARRC Building University Of York YORK YO10 5DD Email: ytu-mc2@york.ac.uk Tel: 01904 321702

THANK YOU FOR READING THIS INFORMATION

Evaluation of the Maths Champions Programme: Pilot Study

INFORMATION FOR PARENTS/CARERS OF 2 YEAR OLDS

Why is this research important?

Previous research tells us that maths is one of the areas where children perform least well and that children who don't have a good start in developing mathematical skills continue to be behind throughout life. Your child's nursery is taking part in this important pilot study and will deliver a programme developed by the National Day Nurseries Association (NDNA; ndna.org.uk/) called 'Maths Champions'.

The Maths Champions programme aims to help children to develop the mathematical skills they need and this is all done through play within their nursery.

The Education Endowment Foundation (EEF), a charity whose aim is to build the evidence for what works in raising attainment, have funded the Evaluation Team (University of York and Durham University) to conduct this research, to understand more fully how Maths Champions supports children's development. This pilot study will find out how we can best collect the information we require from nurseries, parents/carers and children before we conduct a much bigger research project.

You are receiving this information sheet as your child turned 2 years old by 1st January 2020, attends nursery for at least 15 hours per week and is due to start school in September 2021 or September 2022. This information sheet provides you with details about what the pilot study will involve for you and your child.



What does the Maths Champions programme involve?



Your child's nursery will appoint a member of staff as a 'Maths Champion' and a member of staff as a 'Deputy Maths Champion'. Together the nominated Champions will run the Maths Champions programme in your child's nursery. From January 2020, the nominated Champions will complete online training, have access to lots of online resources, and will work with all the staff within the nursery to improve maths provision for all children, with lots of support from NDNA, with the aim of developing children's skills in maths. The Maths Champions programme will run for 12 months, until December 2020.

You can ask the nominated Champions any questions you may have about the programme. If you would like more information on NDNA's Maths Champions programme, please contact NDNA using the details at the end of this information sheet or visit: ndna.org.uk/childcare-training-maths-champions

What does the pilot study involve for my child?

- Around January 2020, we would ask a member of nursery staff, most likely your child's 'key worker' to complete the Ages and Stages Questionnaire (ASQ-3) about your child. The 'key worker' answers questions about a child's development based on their observations. Your child's nursery will be able to share your child's ASQ-3 assessment with you if you want. For more information: agesandstages.com
- In February 2021, we would also like your child to complete a short, child-friendly assessment called ASPECTS, which will tell us about their emerging maths and language development. Your child will complete ASPECTS with a member of nursery staff, most likely their 'key worker' or with a research assistant from the Evaluation Team. Children tend to enjoy doing ASPECTS as a computer tells a story and then asks the children to answer questions about it. It usually takes about 10 minutes. If your child does not want to do ASPECTS on the day, they do not have to. Your child's nursery will be able to share your child's ASPECTS assessment with you if you want. For more information: cem.org/aspects. If your child moves to a different nursery before February 2021, we may arrange for a research assistant to visit their new setting to complete ASPECTS with them. We will ask your child's nursery to let us know which new nursery your child has moved to, but if they don't know we will contact you to find out.



All research assistants who may sit with your child to complete ASPECTS have:

- Experience working with young children
- Completed safeguarding and data protection training
- Undergone all the necessary checks including a recent Disclosure and Barring Service (DBS) certificate check

What information is collected about me and my child?

We would like to collect information about your child from your child's nursery, including:

- your child's full name
- date of birth
- gender
- home postcode
- Early Years Pupil Premium status
- eligibility for funded childcare
- attendance at nursery per week
- ASQ-3 and ASPECTS assessment reports
- new nursery destination if applicable



If your child's nursery does not have any of this information we will contact you to collect it, so we are collecting your contact information for this purpose. None of the information collected about your child as part of this pilot study will affect your child's place at nursery. The Frequently Asked Questions section below tells you more about how we will use, store and share the information collected in the project.

In order for the ASPECTS assessment to be conducted, the Centre for Evaluation and Monitoring (CEM) who host the assessment, will collect your child's name, date of birth, gender, year group and class. Information on CEM's use of personal data can be found in their Privacy Notice: cem.org/privacy-notice

What do I need to do now?

If you are happy for your child to take part in the pilot study of Maths Champions, please complete the attached Parent/Carer Consent Form and return it to your child's nursery as soon as possible.

If you do not return a valid consent form, assessments will not be carried out with your child for the pilot study evaluation and no information about your child will be shared with the Evaluation Team. All children at participating nurseries will be involved in Maths Champions even if you choose for them not to take part in the research elements of the pilot study.

Frequently Asked Questions

Is my child's participation in the research confidential? All participant data will be treated with the strictest confidence and will be stored in compliance with the General Data Protection Regulation (GDPR) and Data Protection Act 2018. We will not use your name, your child's name or the name of participating nurseries in any report arising from the research.

Can we withdraw from the project? If you complete and return a consent form and then change your mind you are free to withdraw your child at any time by telling your child's nursery, who will then communicate this with the Evaluation Team, or by contacting us directly using the contact details provided. If you would prefer your child NOT to take part in any project assessments, or their data not to be processed as above, please DO NOT return a completed and signed Consent Form.

Questions or concerns: If you have any questions about this information sheet or concerns about how your child's data is being processed, please contact the evaluation team at ytu-mc2@york.ac.uk in the first instance. You may also contact the University of York's Data Protection Officer at dataprotection@york.ac.uk.

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Who is the Data Controller? For the purposes of this project, the University of York is the data controller as defined in the GDPR. Once the data has been submitted to the Office for National Statistics (ONS) for archiving in the EEF data archive and passed quality checks, the EEF holds data controller responsibility for the data.

How do we keep your data and your child's data secure? The University takes information security extremely seriously and has implemented appropriate technical and organisational measures to protect data. Access to information is restricted on a need-to-know basis and security arrangements are regularly reviewed to ensure their continued suitability. Further information about how we will use the information provided about your child can be found at: york.ac.uk/healthsciences/research/trials/trials-gdpr/

Under what legal basis do we process your data and your child's personal data? Personal data will be processed under Article 6 (1) (e) (*Processing necessary for the performance of a task carried out in the public interest*) and Special Category data under Article 9 (2) (j) (*Processing necessary for ... scientific ... research purposes*) of the General Data Protection Regulation (2018).



How long will we keep your data and your child's data? All individually identifiable data held by the evaluation team will be destroyed 5 years after the end of the study (2027). Data submitted to the ONS archive will include individually identifiable data and is kept indefinitely for the purposes of future research.

Who will your data and your child's data be shared with and why? Your information and contact details will only be used by the Evaluation Team for the purposes of this project. For the purposes of future research, all the information collected about your child in this research project will be shared by the Evaluation Team, with the Department for Education, the EEF's archive manager and, in an anonymised form, with the Office for National Statistics and potentially other research teams.

Identifiable information about your child will be shared with the Department for Education in order to collect routinely collected information about your child (this is known as 'matching'). The Department for Education can provide information about your child's future educational development which is collected through the National Pupil Database. Further matching to the National Pupil Database and other administrative data may take place during subsequent research. There will be no international data transfers outside of the EU.

What rights do you have in relation to your data and your child's data? Under the GDPR, you have a right of access to your data and your child's data, a right to rectification, erasure (in certain circumstances), restriction, objection or portability (in certain circumstances). Further information can be found at: york.ac.uk/healthsciences/research/trials/trials-gdpr/research-participants/

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Has the evaluation received ethical approval? The University of York, Health Sciences Research Governance Committee is reviewing the ethical standards of this project. The project has received ethical approval from the committee for the aspects of the research detailed in this information sheet.

Where can I find out the results of the evaluation? The evaluation team have to produce a final evaluation report. This is due in January 2022 and will be published by the EEF on their website (educationendowmentfoundation.org.uk); this final report will not name any schools or individual children.

Who do I contact if I have further questions?

NDNA contact details:	Evaluation Team contact details:
<p>Maths Champions Team National Day Nurseries Association National Early Years Enterprise Centre Longbow Close Huddersfield HD2 1GQ</p> <p>Email: MCstudy@ndna.org.uk Tel: 01484 407078</p>	<p>Maths Champions II Evaluation Team York Trials Unit 1st Floor, ARRC Building University Of York YORK YO10 5DD</p> <p>Email: ytu-mc2@york.ac.uk Tel: 01904 321702</p>

THANK YOU FOR READING THIS INFORMATION

Evaluation of the Maths Champions Programme: Pilot Study

CONSENT FORM FOR PARENTS/CARERS OF 3-4 YEAR OLDS

If you are happy for your child to participate in the pilot study, please read each of the following statements and if you agree to them initial the boxes, fill in the other details and return to your child's nursery.

Please Initial

1. I confirm that I have read and understood the information sheet for parent/carers of 3-4 year olds (V1.0 20191220) about the 'Evaluation of the Maths Champions Programme: Pilot Study' and have had the opportunity to ask any questions about the study and any questions have been answered to my satisfaction.
2. I understand that our participation is voluntary and that I can withdraw my child from the research study at any time without giving a reason, and without my child's nursery provision being affected, by telling my child's nursery or contacting the Evaluation Team.
3. I agree to the Evaluation Team holding copies of this consent form and my contact details to allow them to contact me for details about my child.
4. I agree for my child's nursery to provide the Evaluation Team with information about my child outlined in the information sheet.
5. I understand that any information collected for this study, including personal data, will be kept confidential and stored securely.
6. I agree for my child to take part in the assessments, outlined in the information sheet, while they are at nursery.
7. As part of the ASPECTS assessment I understand that the Centre for Evaluation and Monitoring (CEM) at Cambridge Assessment will collect information about my child, including name, date of birth, gender, year group and class.
8. I understand and agree that for the purposes of this research and future research, the information collected about my child in this research study will be shared by the Evaluation Team, with the Department for Education, the EEF's archive manager and, in an anonymised form, with the Office for National Statistics and potentially other research teams.
9. I agree that my child and I will take part in the Maths Champions Pilot Study.

PLEASE TURN OVER AND COMPLETE THE OTHER SIDE

Child's name: _____

Child's Date of Birth:

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Child's nursery setting: _____

Parent/Carer Contact Telephone Number: _____

Parent/Carer Contact Email Address: _____

Print name

Name of Parent/Carer (*please print*)

Signature

Signature of Parent/Carer

d d / m m / y y y y

		/			/	2	0		
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Date

Thank you for agreeing for your child to take part in this evaluation. Please return this form to your child's nursery as soon as possible.

Evaluation of the Maths Champions Programme: Pilot Study

CONSENT FORM FOR PARENTS/CARERS OF 2 YEAR OLDS

If you are happy for your child to participate in the pilot study, please read each of the following statements and if you agree to them initial the boxes, fill in the other details and return to your child's nursery.

- Please Initial*
1. I confirm that I have read and understood the information sheet for parent/carers of 2 year olds (V1.0 20191220) about the 'Evaluation of the Maths Champions Programme: Pilot Study' and have had the opportunity to ask any questions about the study and any questions have been answered to my satisfaction.
 2. I understand that our participation is voluntary and that I can withdraw my child from the research study at any time without giving a reason, and without my child's nursery provision being affected, by telling my child's nursery or contacting the Evaluation Team.
 3. I agree to the Evaluation Team holding copies of this consent form and my contact details to allow them to contact me for details about my child.
 4. I agree for my child's nursery to provide the Evaluation Team with information about my child outlined in the information sheet.
 5. I understand that any information collected for this study, including personal data, will be kept confidential and stored securely.
 6. I agree for my child to take part in the assessments, outlined in the information sheet, while they are at nursery.
 7. As part of the ASPECTS assessment I understand that the Centre for Evaluation and Monitoring (CEM) at Cambridge Assessment will collect information about my child, including name, date of birth, gender, year group and class.
 8. I understand and agree that for the purposes of this research and future research, the information collected about my child in this research study will be shared by the Evaluation Team, with the Department for Education, the EEF's archive manager and, in an anonymised form, with the Office for National Statistics and potentially other research teams.
 9. I agree that my child and I will take part in the Maths Champions Pilot Study.

PLEASE TURN OVER AND COMPLETE THE OTHER SIDE

Child's name: _____

Child's Date of Birth:

d d / m m / y y y y

		/			/	2	0		
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Child's nursery setting: _____

Parent/Carer Contact Telephone Number: _____

Parent/Carer Contact Email Address: _____

Print name

Name of Parent/Carer (please print)

Signature

Signature of Parent/Carer

d d / m m / y y y y

		/			/	2	0		
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Date

Thank you for agreeing for your child to take part in this evaluation. Please return this form to your child's nursery as soon as possible.

Appendix 4 – Research Instruments (Pilot)

Included in this Appendix:

- Baseline setting survey
- MC II pilot parent carer recruitment survey V1 20200302 (nb. not used)
- See appendix 2 for interview guides

Maths Champions II Pilot Baseline Nursery Survey

Thank you for agreeing to take part in the Maths Champions pilot study. Before the pilot starts, we would like you to complete this short survey so that we can learn more about your nursery setting and what 'usual practice' looks like with regards to staff CPD and teaching maths to children aged 2-4. This survey should be completed by the nursery manager/head teacher and should take no longer than 10-15 minutes to complete.

Confidentiality and data processing:

All data provided in answers to this questionnaire will be treated with the strictest of confidentiality and in accordance with General Data Protection Regulation (EU) 2016/679 and Data Protection Act 2018. In any reports and publications arising from the evaluation, all data will be presented anonymously with no individuals (settings, teachers, pupils) identified. Confidentiality will be maintained at all times and no one outside the evaluation team will have access to the database containing the questionnaire answers.

In this questionnaire we will ask you for the name of your setting, its postcode and yours and others role within the setting. The purpose of collecting this data is because the evaluation team need to this information about the different team members in your setting, this is part of the agreement that your setting made when they signed up to participate in the evaluation of Maths Champions.

The purpose of collecting your answers to this survey is so that the evaluation team can fulfil their role as evaluators, as outlined in the Memorandum of Understanding that your setting signed. Further information about the data the evaluation team collect can also be found in the data sharing agreement (DSA) that your setting signed. As outlined in the DSA, the legal basis under which the University processes personal data for research purposes is Article 6 (1) (e) of the GDPR: Processing is necessary for the performance of a task carried out in the public interest.

You will now be asked to check three boxes to confirm that you agree to complete this short questionnaire and that you have read the information above in relation to how the data will be processed.

If you wish to amend or withdraw your answers after you have submitted this survey you will need to let the evaluation team know by April 2028 as after this time the data from the surveys will be anonymised and analysed and it will not be possible to identify your answers.

If you have any questions about this questionnaire or the evaluation of Maths Champions, please contact the evaluation team on: ytu-mc2@york.ac.uk.

Please read and check the boxes below to confirm your agreement:

- I confirm that I have read the information about how data from this questionnaire will be processed.
- I understand that if I wish to withdraw my responses prior to April 2028 I need to contact the evaluation team.
- I confirm that I am happy to complete this short online questionnaire about Maths Champions.

1. About your nursery:

1a. Nursery name, please state:

1b. Nursery postcode, please state:

1c. Nursery type, please select:

- Private
- Voluntary
- Independent
- Maintained
- School-based

1d. What is your role? Please select:

- Nursery manager
- Head teacher
- Other, please state:

1e. Please state how many practitioners at your setting are qualified to Level 6 (graduate) or above in early

years?

2. Thinking about the staff member you have nominated to be the 'Maths Champion' within your nursery:

2a. What is their role? Please select all that apply:

- Nursery manager
- Room leader
- Nursery practitioner
- Other (please state):

2b. What is the highest early years qualification of your nursery's nominated Maths Champion? Please select:

- Level 3 (Related A-level, level 3 NVQ, Early Years Educator)
- Level 4 (Related Level 4 NVQ e.g. Early Years Advanced Practitioner)
- Level 5 (Related Level 5 NVQ e.g. Diploma in Leadership for Health and Social Care and Children and Young People's Services, or related foundation degree)
- Level 6 (Related Honours degree, Early Years Teacher, Qualified Teacher Status)
- Level 7 (Related Master's degree, Postgraduate Certificate of Education, National Award for Special Educational Needs Co-ordination)
- Level 8 (Related Doctorate)

3. Thinking about the staff member you have nominated to be the 'Deputy Maths Champion' within your nursery:

3a. What is their role? Please select all that apply:

- Nursery manager
- Room leader
- Nursery practitioner
- Other (please state):

3b. What is the highest early years qualification of your nursery's nominated Deputy Maths Champion? Please select:

- Level 3 (Related A-level, level 3 NVQ, Early Years Educator)
- Level 4 (Related Level 4 NVQ e.g. Early Years Advanced Practitioner)

- Level 5 (Related Level 5 NVQ e.g. Diploma in Leadership for Health and Social Care and Children and Young People's Services, or related foundation degree)
- Level 6 (Related Honours degree, Early Years Teacher, Qualified Teacher Status)
- Level 7 (Related Master's degree, Postgraduate Certificate of Education, National Award for Special Educational Needs Co-ordination)
- Level 8 (Related Doctorate)

4. Thinking about staff CPD within your nursery:

4a. During the last 2 years, has your nursery undertaken any other maths/numeracy-related CPD programmes?

- Yes, please provide further details including name of the programme, how long it took staff to complete (number of days), some information about the staff who completed it such as their role and qualifications, how the programme was accessed e.g. online only, face to face/in person or both online and face to face/in person:

- No

4c. During the last 2 years, has your nursery undertaken any CPD programmes that are not maths/numeracy related?

- Yes, please provide further details including name of the programme, how long it took staff to complete (number of days), some information about the staff who completed it such as their role and qualifications:

- No

4d. What subject area(s) CPD do you feel staff in your nursery would benefit from the most, if any? Please select all that apply:

- Communication and language
- Physical development
- Personal, social and emotional development
- Literacy
- Mathematics
- Understanding the world
- Expressive arts and design

4e. What, if any, do you feel are the barriers to staff completing CPD within your nursery? Please state:

4f. Do staff have a certain amount of allocated time each month/year for CPD?

- Yes
- No

4g. If yes, does this vary by role and existing qualifications of staff members?

- Yes, please provide the time allocated for CPD by staff role:

- No, please provide the time allocated for CPD for all staff roles:

4h. When do staff usually complete CPD?

- During normal working hours
- in their own time
- both

4i. Approximately what is your nursery's annual budget for CPD training? Please state:

4j. Other than adopting the Maths Champions programme, does your nursery have any other CPD planned for 2020?

- Yes, please provide further details:

- No

5. Thinking about teaching maths to children in your nursery:

5a. What does usual maths teaching/provision look like for 3-4 year olds within your nursery? Please provide a brief description of the content and how it is delivered.

5b. Please provide details of any upcoming programmes the nursery will be implementing. Please include a brief description, the name and subject of the programme.

MC II pilot parent carer recruitment survey V1 20200302

Maths Champions II Evaluation Team
York Trials Unit
1st Floor, ARRC Building
University of York
YORK
YO10 5DD
Tel: 01904 321702
Email: ytu-mc2@york.ac.uk

Dear parent/carers,

Your child's nursery is taking part in a pilot study evaluating the National Day Nurseries Association's (NDNA) Maths Champion Programme.

You recently received an information sheet telling you about the study and inviting you to provide consent for your child to take part. We are inviting all parents/carers who received an information sheet to complete an anonymous questionnaire, regardless of whether they consented for their child to take part or not.

Your answers will help us to understand what parents/carers thought of the information sheet and why they decided to consent for their child to take part, or not to consent. The information you provide is really important and will help us to design future research that takes place in nurseries.

The attached questionnaire will take no longer than 5 minutes to complete.

If you are happy to complete the anonymous questionnaire, please return the hardcopy to us in the freepost envelope provided or you can follow this link to complete the survey online:

york.qualtrics.com/jfe/form/SV_3wtw10oTZfvgHVr

By returning the completed questionnaire, you are agreeing that you are happy for us to use the information you provided. If you decide not to return the questionnaire, it will not change your child's involvement in the pilot study.

All information collected will be treated with the strictest confidence and will be stored in compliance with GDPR and Data Protection Act 2018.

If you have any questions please contact us using the details at the top of this letter.

Thank you for your help.

Yours sincerely,

Lyn Robinson-Smith and Hannah Ainsworth

Principal Investigators for the Maths Champions II Evaluation

Maths Champions Parent/Carer Survey

1. Do you remember receiving information about the Maths Champions pilot study? Please tick one:

- Yes
 No

2. Was the information sheet you received easy to understand? Please tick one:

Yes

No

3. How could the information sheet be improved? Please write any feedback you may have:

4. Were nursery staff able to answer any questions you had about the pilot study?

Yes

No

5. Do you have any unanswered questions about the pilot study?

Yes, please write what it is/they are:

No

6. Did you consent for your child to take part in the pilot study evaluating the Maths Champions programme?

Yes

No

If no, please explain why you decided not to provide consent for your child to take part:

7. When is your child due to start Reception class in school?

September 2020

September 2021/September 2022

Thank you!

Appendix 5 – Data Sharing Agreement



Data Sharing Agreement

Between

UNIVERSITY OF YORK

and

[Setting Name]

1. Parties

1.1. **UNIVERSITY OF YORK**, whose registered office is at University of York, Heslington, York, YO10 5DD (the 'University'); and

1.2. [Setting name and address] (the 'Setting').

Each known as a 'Party' and together as the 'Parties'.

2. Background

2.1. The University of York is conducting a research project entitled 'Evaluation of the Maths Champions Programme: Pilot Study' (the 'Project') on behalf of the Educational Endowment Fund (EEF), who have funded the Project, and in collaboration with Durham University.

2.2. The Parties have entered into a memorandum of understanding which sets out the role of the University of York and the Setting in relation to the Project.

2.3. The Project requires that data is shared by the Parties including Personal Data and this Agreement will set out the arrangements between the Parties for the sharing of that data for the purposes of the Project.

3. Definitions and interpretation

3.1. For the purposes of this Agreement:

- 'Agreement' means, this data sharing agreement, its attachments, and any agreed amendments.
- 'Data Protection Laws' means, the General Data Protection Regulation (EU) 2016/679 and Data Protection Act 2018 and all applicable laws and regulations relating to the processing of the personal data and privacy, including where applicable the guidance and codes of practice issued by the Information Commissioner .
- 'Data Controller', 'data processor', 'data subject' 'personal data', 'processing', 'special category data' have the meanings as defined by the General Data Protection Regulation (EU) 2016/679.

3.2. The headings of the articles and clauses in this Agreement are for convenience only and have no legal effect.

3.3. References in this Agreement to any statute or statutory provision include reference to the same as amended, re-enacted, or replaced from time to time.

4. Nature and purpose of the sharing

4.1. The parties agree to share data for the following purposes only:

The purpose of sharing children's data is to assist the evaluation team (researchers at the University of York) to independently evaluate the effectiveness of the Maths Champions programme on behalf of the Education Endowment Foundation (EEF).

The EEF is an independent charity founded in 2011 with funding from the Department of Education. Its aim is to build the evidence for what works in raising children's attainment. Consequently, evaluations are conducted to demonstrate the impact of its projects on attainment. All EEF evaluations require data on the background characteristics of participating children/pupils/students (e.g. Early Years Pupil Premium or free school meals eligibility) and their attainment – from nurseries/schools and from the National Pupil Database (NPD).

Ultimately, the EEF aims to track all participating children/pupils/students longitudinally using the NPD and linking with data collected directly from EEF evaluations. This data will be stored in an EEF data archive (currently held by FFT Education, but in the process of moving over to the Office for National Statistics [ONS]), with the aim to eventually make it publicly available in an anonymised form for further research for the benefit of the wider education and research communities.

5. Data items to be shared

- 5.1. The Setting has agreed to provide to the University of York the personal data set out in Appendix 1 (the "Data").
- 5.2. The parties will share the minimum amount of personal information necessary for the purpose specified in this Agreement. For a breakdown of data categories being shared see Appendix 1.
- 5.3. As part of the ASPECTS assessments that will be completed with participating children, the Centre for Evaluation and Monitoring (CEM; ASPECTS developers) at Cambridge Assessment will collect and hold information about each participating child, including name, date of birth, gender, year group and class. These mandatory data are required to be submitted into the online ASPECTS software to enable the assessment to be completed and results to be generated. Information on CEM's use of personal data can be found in their Privacy Notice, available here: <https://www.cem.org/privacy-notice>.
- 5.4. For the purposes of this project, CEM at Cambridge Assessment will create online accounts in order to use the ASPECTS assessment. These accounts will be accessible to both the Nursery and The University of York. Either party will be able to enter data about participating children into the account and view the results of ASPECTS assessments. Nursery's will be required to sign an agreement with CEM, at Cambridge Assessment, covering the use of the ASPECTS assessment.
- 5.5. The Data will be shared with collaborators from the University of Durham, responsible for the Implementation and Process Evaluation phase of the Project, including conducting interviews with staff of the Setting. The University of Durham are data processors of the data acting on behalf of the University of York in accordance with the Data Protection Laws.
- 5.6. For the purposes of this research and future research, the Data (set out in Appendix 1) will be shared at the end of the Project by the University of York, with the Department for Education, the EEF's archive manager and, in an anonymised form, with the Office for National Statistics and potentially other research teams. See 7.3 for further information.
- 5.7. An anonymised version of the Data may be retained by the University of York upon expiration of this Agreement and used for future research purposes.

6. Data protection

- 6.1. Each Party shall in relation to the processing of the personal data comply with its respective obligations under the Data Protection Laws.
- 6.2. Each Party shall act as a Data Controller in respect of the processing of the personal data that is the subject of this Agreement on its own behalf and in particular each shall be a Data Controller of the personal data acting individually and in common, as follows:
 - 6.2.1. The Setting shall be a Data Controller where it is Processing the Personal Data in relation to its usual business as a provider of education; and
 - 6.2.2. The University shall be a Data Controller where it is processing the personal data in relation to the research Project. Once the data has been submitted to the Office for National Statistics (ONS) for archiving in the EEF data archive and passed quality checks, the EEF hold data controller responsibility for the data.
- 6.3. Each Party shall assist the other Party in complying with all applicable requirements of the Data Protection Laws in relation to the processing of the personal data.
- 6.4. A Party sharing information under this Agreement will ensure it is not subject to any prohibition or restriction which would:
 - 6.4.1. prevent or restrict it from disclosing or transferring the personal data to the other Party as required under this Agreement;
 - 6.4.2. prevent or restrict it from granting the other Party access to the personal data as required under this Agreement; or

6.4.3. prevent or restrict the Party from processing the personal data, as envisaged under this Agreement.

7. Legal basis for processing personal data

7.1. In line with the University of York's charter which states that the University advances learning and knowledge by teaching and research, the University processes personal data for research purposes including this Project under Article 6 (1) (e) of the GDPR:

- Processing is necessary for the performance of a task carried out in the public interest

If special category data is being shared under this Agreement, it will be processed by the University under Article 9 (2) (j):

- Processing is necessary for archiving purposes in the public interest, or scientific and historical research purposes or statistical purposes

7.2. Research will only be undertaken by the University of York where ethical approval has been obtained, where there is a clear public interest and where appropriate safeguards have been put in place to protect data.

7.3. At the end of this Project, the University of York, as evaluators, are expected to submit data to the EEF data archive, currently held by FFT Education but expected to be held by the Office for National Statistics (ONS) by the end of this Project. When the data is transferred to ONS, the EEF becomes the Data Controller and is responsible for determining the purpose and means of the data processing. The Project data may be shared by the EEF with the Department for Education and, in an anonymised form, with the Office for National Statistics and potentially with other research teams. The EEF processes personal data from evaluations on the basis of legitimate interests, according to the General Data Protection Regulation (GDPR), Article 6, paragraph 1(f). Further information about how the data is processed by the EEF can be found in their privacy notice: https://educationendowmentfoundation.org.uk/public/files/Grantee_guide_and_EEF_policies/Evaluation/Data_protection/Privacy_notice_-_EEF_evaluations.pdf.

8. Access and individuals' rights

8.1. The parties recognise that data subjects have the following general rights under data protection law:

- a right to be informed
- a right of access
- a right to rectification
- a right to erasure
- a right to restrict processing
- a right to data portability
- a right to object
- rights in relation to automated decision making and profiling

8.2. Where a request is received by a data subject to exercise any of these rights set out in 8.1, the receiving party will promptly (and in any event within 48 hours), notify the other Party. The parties will take necessary steps, as required by the Data Protection Laws, to comply with such requests.

8.3. In the event that a Freedom of Information Request is submitted for the shared data, the receiving party will notify and consult the other Party. The decision to disclose (in full or in part) or not will rest with the receiving party.

9. Governance and security

9.1. The Parties agree to ensure that all personal data disclosed or transferred to, or accessed by, the other Party is accurate and up-to-date, as well as adequate, relevant and not excessive to enable a party to process the personal data as envisaged under this Agreement;

9.2. Notwithstanding 9.1, the Parties agree to take the following steps to ensure data accuracy: the child data provided by the Setting at the start of the Project will be imported into a University database and cross-checked with the original to ensure consistency. A dedicated member of the University's team will ensure that all research data collected during the Project is correctly completed, assigned and input.

- 9.3. Personal identifiable electronic data sent by the Setting to the University's evaluation team will be encrypted and transferred via the University of York's DropOff service. Consent forms and any paper questionnaires and assessment sheets will be delivered and returned by courier service or Royal Mail recorded delivery.
- 9.4. The parties agree to maintain appropriate technical and organisational measures to safeguard data from unauthorised or unlawful processing, accidental loss, destruction or damage. The agreed technical and organisational security measures are set out in Appendix 2.
- 9.5. All identifiable personal data will be destroyed 5 years after the end of the Project (expected to be April 2028).
- 9.6. Each party agrees to provide the other with all information necessary to demonstrate compliance with the terms of this Agreement. This includes a general right to audit, inspect or otherwise verify the steps taken.
- 9.7. The Party receiving personal data will not share that data with a third party without the other Party(s) prior consent, save in relation to disclosures to recipients as set out in this Agreement as having permitted access, including those set out in clause 5.3, clause 5.5, clause 7.3 and Appendix 2.

10. Data breach management

- 10.1. Each Party shall within 24 hours notify the other Party on discovery of accidental or unlawful destruction, loss, alteration, unauthorised disclosure or access to personal data or (where applicable) special category data which is the personal data of the other Party as set out in this Agreement.
- 10.2. The Parties will within such timescale to be agreed between the Parties (acting reasonably) implement any measures necessary to restore the security of compromised personal data and support the other Party to make any required notifications to the ICO and/or other equivalent relevant regulator and affected data subjects.
- 10.3. Notwithstanding 10.2, on discovery of a data breach, the University of York will follow its Information Security Incident Management Policy as set out in Appendix 2.
- 10.4. Each Party will, where relevant, support the other Party with such investigations.

11. Term and termination

- 11.1. This Agreement will commence on the date when the last party has signed the Agreement and remain in force until the Parties have completed their respective obligations under this Agreement, or unless terminated earlier as provided in 11.2 or extended with Agreement of the Parties.
- 11.2. A Party may terminate this Agreement upon written notice to the other Party if the other Party has breached the terms of this Agreement, and such breach is not cured within thirty (30) days of written notice. Where the University is the Party in breach, the University shall securely delete the Data under its control on termination of the Agreement in accordance with this clause 11.2.
- 11.3. Termination or expiry of this Agreement shall not affect the survival of any clauses or provisions herein which are stated, or which by their nature are intended, to continue after termination or expiry.

12. General provisions

- 12.1. No one who is not a party to this Agreement is intended to or may benefit from its terms.
- 12.2. This Agreement and the attached appendix constitutes the entire agreement between the Parties with respect to the subject matter of this Agreement and supersedes all prior and contemporaneous agreements or communications.
- 12.3. The Parties may not amend this Agreement, except by a written agreement of authorised representatives of the Parties.
- 12.4. This Agreement (and all non-contractual liability arising from it) is governed by, and is to be construed in accordance with, the laws of England and Wales. The English Courts will have exclusive jurisdiction to deal with any dispute which arises out of, or in connection with, this Agreement and the Parties irrevocably submit to such jurisdiction.

12.5. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one legal document. Signatures transmitted in an Adobe Portable Document Format (PDF) file attached to an email shall be acceptable to bind each Party and shall not affect the validity of the Agreement in any way.

The Parties have signed this Agreement by their respective duly authorised representatives.

SIGNED FOR AND ON BEHALF OF
The University of York

Signed: _____

Name: Michael Barber

Job Title: Contracts and Sponsorship Manager

Date: _____

SIGNED FOR AND ON BEHALF OF
[Setting name]

Signed: _____

Name: _____

Job Title: _____

Date: _____

Signatories should be members of the senior leadership/management team or other individual authorised to sign documentation of this nature on behalf of the organisation.

Appendix 1

Description of Data

Item	Purpose/Use	Source	When collected	Format
Parent/carer consent forms (data included: child name, child's date of birth, and nursery setting; parent/carer telephone number and email address, parent/carer name)	To gain a record of the children whose parents/carers have consented for them to participate in the Project. Opt in consent is gained as assessing nursery children is not routine. Parent/carer contact details are collected to allow the University to contact parents/carers if Settings do not have the child details outlined below.	Parent/carers via Setting	January – February 2020	Paper consent forms
Child details (full name, date of birth, gender, home postcode, Early Years Pupil Premium status, eligibility for funded childcare, attendance at nursery per week)	To allow the University's evaluation team to coordinate the Project	Setting	January – February 2020	Encrypted Excel spreadsheet or via phone
New nursery destination	Collected if participating children move nurseries during the Project to enable assessments to be completed at the new Setting	Setting or parents/carers	January – February 2021	Encrypted Excel spreadsheet or via phone
ASPECTS assessment data (data included: child name, child's date of birth, gender, year group, class, ASPCECTS assessment results)	To pilot the primary baseline/outcome measure (ASPECTS maths score) and secondary baseline/outcome measure (ASPECTS language score) for the main trial (taking place during the 2021/22 academic year)	Assessment administered by setting staff or University of York research assistants using CEM software.	January – February 2020 and in June 2020 for Cohort 1 children (aged 3-4 years at study entry and due to start school in September 2020) February 2021 for Cohort 2 children (aged 2 years at study entry and due to start school in September 2021 or 2022)	Downloaded from the Setting's ASPECTS online account, accessible to setting and University of York evaluation team

Item	Purpose/Use	Source	When collected	Format
Ages and Stages Questionnaire (ASQ-3)	To pilot using the ASQ-3 as baseline measure of general development for the main trial and future research	Completed by Setting staff or University of York research assistants for Cohort 2 children (aged 2years at study entry and due to start school in September 2021 or 2022)	January – February 2020	Paper booklet
Assessment Registers	To allow the University's evaluation team to coordinate the Project and complete assessment in nursery settings. To identify pupils to assess when visiting the setting and record participation	Provided by evaluation team to School and assessors	Used at assessment periods. January – June 2020	Paper/Encrypted excel spreadsheet
Practitioner Confidence and Beliefs Survey	Secondary outcome measure	Completed by Setting staff	June 2020	Online survey (Qualtrics survey software)
Anonymous Parent/carer recruitment survey	To explore barriers to recruitment into the evaluation	Completed by parent/carers	January – February 2020	Paper or online survey (Qualtrics survey software)
Setting characteristics and usual practice survey	To pilot the survey for the main trial and to explore viewpoints and provision of continuing professional development (CPD) training for nursery staff	Completed by Setting staff	January – February 2010	Online survey (Qualtrics survey software)
Semi-structured interviews and nursery staff consent forms for interviews (a sample of Maths Champions, Deputy Maths Champions, and other nursery practitioners across Settings will be interviewed by the evaluation team)	To explore feasibility and perceptions of delivering and evaluating the Maths Champion programme within nursery settings. Consent will be gained from nursery staff who take part in an interview	Collected by evaluation team at the Setting or via phone	January – June 2020	Paper and audio voice recording

Item	Purpose/Use	Source	When collected	Format
Semi-structured observations and nursery staff consent forms for observations at settings (a sample of Settings will be observed by the evaluation team)	To explore feasibility and perceptions of delivering the Maths Champion programme	Collected by evaluation team at the Setting	January – June 2020	Paper

Appendix 2

Security arrangements

All electronic data will be stored on central servers with access through authorised network computers or via the secure Remote Desktop using the University of York encrypted VPN. No data will be stored on portable devices, other than audio recordings being held on a password-protected voice recorder until they can be uploaded to the university servers.

Children's personal details will be held separately from all other student data. Children will be allocated a unique identifier (Participant ID) that will be used to label all data collected by the University's evaluation team.

The University wide information security policy is publicly available at: <https://www.york.ac.uk/media/it-services/docs/policy/policies/InformationSecurityPolicy.pdf>

The University's Information Security Incident Management policy is available at: <https://www.york.ac.uk/about/departments/support-and-admin/information-services/information-policy/index/information-security-incident-management-policy/>

Item	Transfer to/from evaluation team	Storage	Access	Destruction of personal data
Parent/carer consent forms (data included: child name, child date of birth, and nursery setting; parent/carer telephone number and email address, parent/carer name)	Collected from the Setting by courier	Paper forms will be held in locked filing cabinets stored in a room with restricted access at University of York. Data will be inputted into a password-protected database on the University of York servers.	Restricted to members of the University of York's evaluation team	April 2028
Child details (full name, date of birth, gender, home postcode, Early Years Pupil Premium status, eligibility for funded childcare, attendance at nursery per week)	Encrypted and sent by Setting via the University of York's DropOff service, details may be checked by phone.	Password-protected database on University of York servers	Restricted to members of the University of York's evaluation team	April 2028
New nursery destination	Encrypted and sent by the Setting via University of York's DropOff service or collected by phone.	Password-protected database on University of York servers	Restricted to members of the University of York's evaluation team	April 2028

Item	Transfer to/from evaluation team	Storage	Access	Destruction of personal data
	Or collected from parent/carer via phone			
ASPECTS assessment data	Downloaded from the Setting's ASPECTS online account by the evaluation team	Password-protected database on University of York servers CEM systems	Restricted to members of the University of York's evaluation team	April 2028
Ages and Stages Questionnaire (ASQ-3)	Collected from the Setting by courier (no identifying details will be on the questionnaire booklets - labelled with Participant ID only)	Paper forms will be held in locked filing cabinets stored in a room with restricted access at the University of York. Data will be inputted into a password-protected database on the University of York servers.	Restricted to members of the University of York's evaluation team	April 2028
Assessment registers	Delivered to the School or assessors with the test papers. Identifying details will be removed before returning and put in the settings's confidential waste.	Electronic versions will be password protected and stored on the University of York servers. Paper forms will be held in locked filing cabinets stored in a room with restricted access at the University of York. Paper forms will be taken to settings by assessors and assessors will take due care of the form's security.	Restricted to members of the University of York's evaluation team including assessors	April 2028
Practitioner Confidence and Beliefs Survey	Downloaded from Qualtrics survey software by the evaluation team	Paper forms will be held in locked filing cabinets stored in a room with restricted access at the University of York. Data will be inputted into a password-protected database on the University of York servers.	Restricted to members of the University of York's and Durham University's evaluation team	April 2028
Anonymous Parent/carer recruitment survey	Returned in freepost envelopes by parents/carers or downloaded from Qualtrics survey software by the evaluation team (anonymous survey with no identifying details or Participant ID)	Paper forms will be held in locked filing cabinets stored in a room with restricted access at the University of York. Data will be inputted into a password-protected database on the University of York servers.	Restricted to members of the University of York's and Durham University's evaluation team	April 2028

Item	Transfer to/from evaluation team	Storage	Access	Destruction of personal data
Setting characteristics and usual practice survey	Downloaded from Qualtrics survey software by the evaluation team	Password-protected database on University of York servers	Restricted to members of the University of York's and Durham University's evaluation team	April 2028
Semi-structured interviews and nursery staff consent forms for interviews (a sample of Maths Champions, Deputy Maths Champions, and other nursery practitioners across Settings will be interviewed by the evaluation team)	<p>Paper interview notes and audio data collected at the time of the visit or phone call to the Setting by the evaluation team.</p> <p>Consent forms may transferred by Settings via the University of York's DropOff service, posted, or collected at the time of the visit.</p>	Audio files will be uploaded to Durham University servers and deleted from the voice recorder. Paper interview notes and consent forms will be stored in separate locked filing cabinets stored in a room with restricted access at Durham University. Data will be inputted into a password-protected database on Durham University servers. Copies may be securely posted to University of York and will be held in locked filing cabinets stored in a room with restricted access at the University of York.	Restricted to members of the University of York's and Durham University's evaluation team	April 2028
Semi-structured observations at settings (a sample of Settings will be observed by the evaluation team)	Paper observation notes collected at the time of the visit to the Setting by the evaluation team.	Paper observation notes will be held in locked filing cabinets stored in a room with restricted access at Durham University. Data will be inputted into a password-protected database on Durham University servers. Copies may be securely posted to University of York and will be held in locked filing cabinets stored in a room with restricted access at the University of York.	Restricted to members of the University of York's and Durham University's evaluation team	April 2028

Appendix 6 – Primary Analysis Code

Stata (v27) code for analysis of primary outcome

```
mixed post_Tot_Maths pre_Tot_Maths i.allocation NoOfDegreeLevelStaff NoEligibleChildren i.nurserytype ||  
SettingId:, robust
```

```
matrix b = e(b)  
matrix list b  
global beta = b[1,3]  
global beta : di %9.2f $beta  
di $beta  
  
mat r=r(table)  
matrix list r  
global lower = r[5,3]  
global lower : di %9.2f $lower  
di $lower  
global upper = r[6,3]  
global upper : di %9.2f $upper  
di $upper  
global pvalue = r[4,3]  
global pvalue : di %9.5f $pvalue  
di $pvalue  
di "Adjusted difference (95% CI) is " $beta " (0" $lower ", " $upper ")"
```

```
*model fit  
/*Standardised residuals are assumed to have a normal distribution*/  
predict res, rstand  
qnorm res, graphregion(color(white)) /* Q-Q plot of std residuals */  
drop res  
graph close _all
```

```
estat icc  
global icc = r(icc2)  
global icc : di %9.2f $icc  
di $icc  
mat r=r(ci2)  
matrix list r  
global licc = r[1,1]  
global licc : di %9.2f $licc  
di $licc  
global uicc = r[1,2]  
global uicc : di %9.2f $uicc  
di $uicc  
di "The ICC (95% CI) is 0" $icc " (0" $licc ", 0" $uicc ")"
```

```
mixed post_Tot_Maths || SettingId:, robust  
*var(_cons) is between-cluster variance  
global bcvar [[exp(_b[lns1_1_1:_cons])]^2]  
global bcvar : di %9.2f $bcvar  
di "Between cluster variance is " $bcvar  
*var(Residual) is within-cluster variance  
global wcvar [[exp(_b[lnsig_e:_cons])]^2]  
global wcvar : di %9.2f $wcvar
```

```
di "Within cluster variance is " $wcvar
```

```
*pooled variance
```

```
global vartt [[exp(_b[lnsig_e:_cons])^2]+[exp(_b[lns1_1_1:_cons])^2]
```

```
global vartt : di %9.2f $vartt
```

```
di "Pooled variance is " $vartt
```

```
global es = $beta/sqrt($vartt)
```

```
global es : di %9.2f $es
```

```
global les = $lower/sqrt($vartt)
```

```
global les : di %9.2f $les
```

```
global ues = $upper/sqrt($vartt)
```

```
global ues : di %9.2f $ues
```

```
di "Effect size (95% CI) is 0" $es " (0" $les ", 0" $ues ")"
```

```
di "p-value is " $pvalue
```

Appendix 7 – Additional Practitioner Confidence Survey Responses

In total, there were n=147 responses to the End of Project Practitioner Confidence Survey (PCS). Of these, there were n=139 valid responses (Intervention, n=75; Control, n=64) included in the PCS analysis (as described in the SAP, the scale was only scored if a valid response was provided across all 11 items of the survey). Of the valid responses, n=86 were provided by Maths Champions (Intervention, n=41; Control, n=45) and n=53 were provided by Deputy Maths Champions (Intervention, n=19; Control, n=34). A summary of the individual items of the PCS is provided overall, and by Math Champions and Deputy Maths Champions separately.

Maths Champion and Deputy Maths Champion

Table 1: Practitioner Confidence Survey response by randomised group.

Variable (categorical)	Intervention group		Control group	
	n/N (missing)	Count (%)	n/N (missing)	Count (%)
Role				
Nursery Manager/Deputy Manager		30 (40.0%)		19 (29.7%)
Room Leader in 3-4 year old room		7 (9.3%)		7 (10.9%)
Nursery Practitioner in 3-4 year old room		7 (9.3%)		4 (6.3%)
Teacher/Nursery Teacher	75/75 (0)	17 (22.7%)	64/64 (0)	18 (28.1%)
EYFS Lead		5 (6.7%)		5 (7.8%)
Headteacher/Deputy Headteacher		2 (2.7%)		2 (3.1%)
Teaching Assistant		2 (2.7%)		2 (3.1%)
Other		5 (6.7%)		7 (10.9%)
Highest early years qualification				
Level 3		20 (26.7%)		10 (15.6%)
Level 4	75/75 (0)	6 (8.0%)	64/64 (0)	3 (4.7%)
Level 5		9 (12.0%)		8 (12.5%)
Level 6		32 (42.7%)		25 (39.1%)
Level 7		8 (10.7%)		18 (28.1%)
I am confident in my knowledge of:				
What children aged 3-4 years old know about maths when they enter my group				
Strongly disagree		1 (1.3%)		1 (1.6%)
Disagree	75/75 (0)	0 (0.0%)	64/64 (0)	3 (4.7%)
Neither agree nor disagree		4 (5.3%)		4 (6.3%)
Agree		42 (56.0%)		42 (65.6%)
Strongly agree		28 (37.3%)		14 (21.9%)
Reasonable maths goals for children aged 3-4 years old				
Strongly disagree		0 (0.0%)		1 (1.6%)
Disagree	75/75 (0)	0 (0.0%)	64/64 (0)	0 (0.0%)
Neither agree nor disagree		0 (0.0%)		3 (4.7%)
Agree		36 (48.0%)		34 (53.1%)
Strongly agree		39 (52.0%)		26 (40.6%)
The best practices and strategies for helping children aged 3-4 years old learn maths				
	75/75 (0)	1 (1.3%)	64/64 (0)	2 (3.1%)
		0 (0.0%)		1 (1.6%)
		1 (1.3%)		4 (6.3%)

Strongly disagree		37 (49.3%)		41 (64.1%)
Disagree		36 (48.0%)		16 (25.0%)
Neither agree nor disagree				
Agree				
Strongly agree				
National maths standards for children aged 3-4 years old				
Strongly disagree		1 (1.3%)		1 (1.6%)
Disagree	75/75 (0)	3 (4.0%)	64/64 (0)	3 (4.7%)
Neither agree nor disagree		5 (6.7%)		9 (14.1%)
Agree		43 (57.3%)		32 (50.0%)
Strongly agree		23 (30.7%)		19 (29.7%)
The best ways to assess children's (aged 3-4 years old) maths knowledge and understanding throughout the year				
Strongly disagree		0 (0.0%)		1 (1.6%)
Disagree	75/75 (0)	2 (2.7%)	64/64 (0)	3 (4.7%)
Neither agree nor disagree		3 (4.0%)		4 (6.3%)
Agree		50 (66.7%)		37 (57.8%)
Strongly agree		20 (26.7%)		19 (29.7%)
I am confident in my ability to:				
Observe what children aged 3-4 years old know about maths				
Strongly disagree		1 (1.3%)		2 (3.1%)
Disagree	75/75 (0)	0 (0.0%)	64/64 (0)	0 (0.0%)
Neither agree nor disagree		3 (4.0%)		2 (3.1%)
Agree		30 (40.0%)		33 (51.6%)
Strongly agree		41 (54.7%)		27 (42.2%)
Incorporate maths learning into other areas of the curricula and nursery life				
Strongly disagree		1 (1.3%)		2 (3.1%)
Disagree	75/75 (0)	0 (0.0%)	64/64 (0)	2 (3.1%)
Neither agree nor disagree		1 (1.3%)		0 (0.0%)
Agree		32 (42.7%)		30 (46.9%)
Strongly agree		41 (54.7%)		30 (46.9%)
Plan activities to help children in my class learn maths				
Strongly disagree		1 (1.3%)		2 (3.1%)
Disagree	75/75 (0)	0 (0.0%)	64/64 (0)	1 (1.6%)
Neither agree nor disagree		1 (1.3%)		3 (4.7%)
Agree		30 (40.0%)		29 (45.3%)
Strongly agree		43 (57.3%)		29 (45.3%)
Further children's maths knowledge when they make spontaneous maths comments/ discoveries				
Strongly disagree		1 (1.3%)		2 (3.1%)
Disagree	75/75 (0)	0 (0.0%)	64/64 (0)	2 (3.1%)
Neither agree nor disagree		1 (1.3%)		0 (0.0%)
Agree		27 (36.0%)		25 (39.1%)
Strongly agree		46 (61.3%)		35 (54.7%)
Make sense of children's confusions when they learn maths				
Strongly disagree		1 (1.3%)		2 (3.1%)
Disagree	75/75 (0)	0 (0.0%)	64/64 (0)	3 (4.7%)
Neither agree nor disagree		6 (8.0%)		5 (7.8%)
Agree		44 (58.7%)		31 (48.4%)
Strongly agree		24 (32.0%)		23 (35.9%)

Translate assessment results into curriculum plans				
Strongly disagree		0 (0.0%)		1 (1.6%)
Disagree	75/75 (0)	0 (0.0%)	64/64 (0)	2 (3.1%)
Neither agree nor disagree		4 (5.3%)		4 (6.3%)
Agree		42 (56.0%)		35 (54.7%)
Strongly agree		29 (38.7%)		22 (34.4%)

MC, Maths Champion; DMC, Deputy Maths Champion; CPD, Continuing Professional Development

Maths Champions

Table 2: Maths Champions Practitioner Confidence Survey response by randomised group.

Variable (categorical)	Intervention group		Control group	
	n/N (missing)	Count (%)	n/N (missing)	Count (%)
Role				
Nursery Manager/Deputy Manager		17 (41.5%)		13 (28.9%)
Room Leader in 3-4 year old room		3 (7.3%)		3 (6.7%)
Nursery Practitioner in 3-4 year old room	41/41 (0)	2 (4.9%)	45/45 (0)	1 (2.2%)
Teacher/Nursery Teacher		14 (34.1%)		15 (33.3%)
EYFS Lead		4 (9.8%)		5 (11.1%)
Headteacher/Deputy Headteacher		1 (2.4%)		2 (4.4%)
Other		0 (0.0%)		6 (13.3%)
Highest early years qualification				
Level 3		8 (19.5%)		3 (6.7%)
Level 4	41/41 (0)	2 (4.9%)	45/45 (0)	3 (6.7%)
Level 5		2 (4.9%)		5 (11.1%)
Level 6		24 (58.5%)		18 (40.0%)
Level 7		5 (12.2%)		16 (35.6%)
I am confident in my knowledge of:				
What children aged 3-4 years old know about maths when they enter my group				
Strongly disagree		0 (0.0%)		1 (2.2%)
Disagree	41/41 (0)	0 (0.0%)	45/45 (0)	1 (2.2%)
Neither agree nor disagree		2 (4.9%)		4 (8.9%)
Agree		24 (58.5%)		27 (60.0%)
Strongly agree		15 (36.6%)		12 (26.7%)
Reasonable maths goals for children aged 3-4 years old				
Strongly disagree		0 (0.0%)		1 (2.2%)
Disagree	41/41 (0)	0 (0.0%)	45/45 (0)	0 (0.0%)
Neither agree nor disagree		0 (0.0%)		2 (4.4%)
Agree		19 (46.3%)		23 (51.1%)
Strongly agree		22 (53.7%)		19 (42.2%)
The best practices and strategies for helping children aged 3-4 years old learn maths				
Strongly disagree		0 (0.0%)		2 (4.4%)
Disagree	41/41 (0)	0 (0.0%)	45/45 (0)	0 (0.0%)
Neither agree nor disagree		1 (2.4%)		4 (8.9%)
Agree		22 (53.7%)		25 (55.6%)
Strongly agree		18 (43.9%)		14 (31.1%)
National maths standards for children aged 3-4 years old				
Strongly disagree		0 (0.0%)		1 (2.2%)
Disagree	41/41 (0)	1 (2.4%)	45/45 (0)	2 (4.4%)
Neither agree nor disagree		4 (9.8%)		4 (8.9%)
Agree		25 (61.0%)		22 (48.9%)
Strongly agree		11 (26.8%)		16 (35.6%)

Strongly agree				
The best ways to assess children's (aged 3-4 years old) maths knowledge and understanding throughout the year				
Strongly disagree	41/41 (0)	0 (0.0%)	45/45 (0)	1 (2.2%)
Disagree		2 (4.9%)		2 (4.4%)
Neither agree nor disagree		2 (4.9%)		3 (6.7%)
Agree		27 (65.9%)		24 (53.3%)
Strongly agree		10 (24.4%)		15 (33.3%)
I am confident in my ability to:				
Observe what children aged 3-4 years old know about maths				
Strongly disagree	41/41 (0)	0 (0.0%)	45/45 (0)	2 (4.4%)
Disagree		0 (0.0%)		0 (0.0%)
Neither agree nor disagree		2 (4.9%)		1 (2.2%)
Agree		14 (34.1%)		22 (48.9%)
Strongly agree		25 (61.0%)		20 (44.4%)
Incorporate maths learning into other areas of the curricula and nursery life				
Strongly disagree	41/41 (0)	0 (0.0%)	45/45 (0)	2 (4.4%)
Disagree		0 (0.0%)		2 (4.4%)
Neither agree nor disagree		1 (2.4%)		0 (0.0%)
Agree		16 (39.0%)		18 (40.0%)
Strongly agree		24 (58.5%)		23 (51.1%)
Plan activities to help children in my class learn maths				
Strongly disagree	41/41 (0)	0 (0.0%)	45/45 (0)	2 (4.4%)
Disagree		0 (0.0%)		0 (0.0%)
Neither agree nor disagree		1 (2.4%)		1 (2.2%)
Agree		16 (39.0%)		20 (44.4%)
Strongly agree		24 (58.5%)		22 (48.9%)
Further children's maths knowledge when they make spontaneous maths comments/ discoveries				
Strongly disagree	41/41 (0)	0 (0.0%)	45/45 (0)	2 (4.4%)
Disagree		0 (0.0%)		1 (2.2%)
Neither agree nor disagree		1 (2.4%)		0 (0.0%)
Agree		13 (31.7%)		16 (35.6%)
Strongly agree		27 (65.9%)		26 (57.8%)
Make sense of children's confusions when they learn maths				
Strongly disagree	41/41 (0)	0 (0.0%)	45/45 (0)	2 (4.4%)
Disagree		0 (0.0%)		2 (4.4%)
Neither agree nor disagree		2 (4.9%)		4 (8.9%)
Agree		25 (61.0%)		18 (40.0%)
Strongly agree		14 (34.1%)		19 (42.2%)
Translate assessment results into curriculum plans				
Strongly disagree	41/41 (0)	0 (0.0%)	45/45 (0)	1 (2.2%)
Disagree		0 (0.0%)		1 (2.2%)
Neither agree nor disagree		2 (4.9%)		2 (4.4%)
Agree		22 (53.7%)		23 (51.1%)
Strongly agree		17 (41.5%)		18 (40.0%)

MC, Maths Champion; DMC, Deputy Maths Champion; CPD, Continuing Professional Development

Deputy Maths Champions

Table 3: Deputy Maths Champions Practitioner Confidence Survey response by randomised group.

Variable (categorical)	Intervention group		Control group	
	n/N (missing)	Count (%)	n/N (missing)	Count (%)
Role				
Nursery Manager/Deputy Manager		13 (38.2%)		6 (31.6%)
Room Leader in 3-4 year old room		4 (11.8%)		4 (21.1%)
Nursery Practitioner in 3-4 year old room		5 (14.7%)		3 (15.8%)
Teacher/Nursery Teacher	34/34 (0)	3 (8.8%)	19/19 (0)	3 (15.8%)
EYFS Lead		1 (2.9%)		0 (0.0%)
Headteacher/Deputy Headteacher		1 (2.9%)		0 (0.0%)
Teaching Assistant		2 (5.9%)		2 (10.5%)
Other		5 (14.7%)		1 (5.3%)
Highest early years qualification				
Level 3		12 (35.3%)		7 (36.8%)
Level 4	34/34 (0)	4 (11.8%)	19/19 (0)	0 (0.0%)
Level 5		7 (20.6%)		3 (15.8%)
Level 6		8 (23.5%)		7 (36.8%)
Level 7		3 (8.8%)		2 (10.5%)
I am confident in my knowledge of:				
What children aged 3-4 years old know about maths when they enter my group				
Strongly disagree		1 (2.9%)		0 (0.0%)
Disagree	34/34 (0)	0 (0.0%)	19/19 (0)	2 (10.5%)
Neither agree nor disagree		2 (5.9%)		0 (0.0%)
Agree		18 (52.9%)		15 (78.9%)
Strongly agree		13 (38.2%)		2 (10.5%)
Reasonable maths goals for children aged 3-4 years old				
Strongly disagree		0 (0.0%)		0 (0.0%)
Disagree	34/34 (0)	0 (0.0%)	19/19 (0)	0 (0.0%)
Neither agree nor disagree		0 (0.0%)		1 (5.3%)
Agree		17 (50.0%)		11 (57.9%)
Strongly agree		17 (50.0%)		7 (36.8%)
The best practices and strategies for helping children aged 3-4 years old learn maths				
Strongly disagree		1 (2.9%)		0 (0.0%)
Disagree	34/34 (0)	0 (0.0%)	19/19 (0)	1 (5.3%)
Neither agree nor disagree		0 (0.0%)		0 (0.0%)
Agree		15 (44.1%)		16 (84.2%)
Strongly agree		18 (52.9%)		2 (10.5%)
National maths standards for children aged 3-4 years old				
Strongly disagree		1 (2.9%)		0 (0.0%)
Disagree	34/34 (0)	2 (5.9%)	19/19 (0)	1 (5.3%)
Strongly disagree		1 (2.9%)		5 (26.3%)
Disagree		18 (52.9%)		10 (52.6%)
		12 (35.3%)		3 (15.8%)

Neither agree nor disagree Agree Strongly agree				
The best ways to assess children's (aged 3-4 years old) maths knowledge and understanding throughout the year Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	34/34 (0)	0 (0.0%) 0 (0.0%) 1 (2.9%) 23 (67.6%) 10 (29.4%)	19/19 (0)	0 (0.0%) 1 (5.3%) 1 (5.3%) 13 (68.4%) 4 (21.1%)
I am confident in my ability to:				
Observe what children aged 3-4 years old know about maths Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	34/34 (0)	1 (2.9%) 0 (0.0%) 1 (2.9%) 16 (47.1%) 16 (47.1%)	19/19 (0)	0 (0.0%) 0 (0.0%) 1 (5.3%) 11 (57.9%) 7 (36.8%)
Incorporate maths learning into other areas of the curricula and nursery life Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	34/34 (0)	1 (2.9%) 0 (0.0%) 0 (0.0%) 16 (47.1%) 17 (50.0%)	19/19 (0)	0 (0.0%) 0 (0.0%) 0 (0.0%) 12 (63.2%) 7 (36.8%)
Plan activities to help children in my class learn maths Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	34/34 (0)	1 (2.9%) 0 (0.0%) 0 (0.0%) 14 (41.2%) 19 (55.9%)	19/19 (0)	0 (0.0%) 1 (5.3%) 2 (10.5%) 9 (47.4%) 7 (36.8%)
Further children's maths knowledge when they make spontaneous maths comments/ discoveries Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	34/34 (0)	1 (2.9%) 0 (0.0%) 0 (0.0%) 14 (41.2%) 19 (55.9%)	19/19 (0)	0 (0.0%) 1 (5.3%) 0 (0.0%) 9 (47.4%) 9 (47.4%)
Make sense of children's confusions when they learn maths Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	34/34 (0)	1 (2.9%) 0 (0.0%) 4 (11.8%) 19 (55.9%) 10 (29.4%)	19/19 (0)	0 (0.0%) 1 (5.3%) 1 (5.3%) 13 (68.4%) 4 (21.1%)
Translate assessment results into curriculum plans Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	34/34 (0)	0 (0.0%) 0 (0.0%) 2 (5.9%) 20 (58.8%) 12 (35.3%)	19/19 (0)	0 (0.0%) 1 (5.3%) 2 (10.5%) 12 (63.2%) 4 (21.1%)

MC, Maths Champion; DMC, Deputy Maths Champion; CPD, Continuing Professional Development

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