





# National Tutoring Programme Tuition Partners Reach and Engagement Randomised Controlled Trial Nimble Trial Protocol

**Evaluator (institution): National Foundation for Educational Research (NFER) Principal investigator(s): Pippa Lord** 

PROJECT TITLE	National Tutoring Programme Tuition Partners Reach and Engagement Randomised Controlled Trial with EM Tuition
INTERVENTION LEAD	EM Tuition
EVALUATOR (INSTITUTION)	National Foundation for Educational Research (NFER)
PRINCIPAL INVESTIGATOR(S)	Pippa Lord
PROTOCOL AUTHOR(S)	Pippa Lord, Jennie Harland, Afrah Dirie, Ben Styles
POPULATION	2,000 primary and secondary schools in Hertfordshire, Essex and North London, East of England and Suffolk
INTERVENTION	Recruitment email with headteacher testimonial
COMPARISON	Recruitment email highlighting the empirical evidence of the benefits of tutoring
PRIMARY OUTCOME MEASURE AND SOURCE	Schools signing a Memorandum of Understanding (MoU) to receive tutoring for their pupils (trial data template maintained by EM Tuition)
SECONDARY OUTCOME MEASURE AND SOURCE	Schools expressing interest to receive tutoring for their pupils (trial data template maintained by EM Tuition)

# **Protocol version history**

VERSION	DATE	REASON FOR REVISION
1.0 [original]	19.03.21	[leave blank for the original version]

#### **Table of contents**

1.	Study rationale and background	2
2.	Intervention	3
3.	Impact evaluation	5
4.	Analysis	9
5.	Implementation and process evaluation	10
6.	Personnel	12
7.	Risks	19
8.	Timeline	21
9.	Ethics and registration	21
10.	Data protection	22

# 1. Study rationale and background

The Education Endowment Foundation (EEF) has commissioned a number of tuition providers to deliver the National Tutoring Programme (NTP), one pillar of which is the Tuition Partners (TP) programme. The TP programme provides subsidised tuition to supplement high-quality classroom teaching as a way of supporting children's learning in response to the Covid-19 pandemic. The focus is on supporting disadvantaged pupils, including those eligible for Pupil Premium.

The EEF has commissioned the National Foundation for Educational Research (NFER) to run a Reach and Engagement Randomised Controlled Trial (RCT) with the Tuition Partner EM Tuition. The RCT will explore the impact of two distinctive types of recruitment emails - testimonial from other headteacher(s) on the benefits of tutoring, and empirical evidence of the benefits of tutoring - on schools' sign-up to the TP programme. The study aims to provide evidence about if and how schools sign up to TP, their motivations, and the best ways to engage schools in catch-up programmes. The findings from the trial will be presented in a short written report to the EEF and will provide lessons learned in terms of what works effectively in engaging schools in the tuition programme.

There is evidence that endorsements and testimonials outlining others' experiences, and highlighting the benefits according to research evidence, are both effective strategies in engaging schools in *making decisions about taking part in research-based activities* – but for different reasons. This study aims to decipher whether, in the current context of providing catch-up support related to Covid-19, one approach is more effective than the other in engaging schools in the tutoring programme.

NFER carried out an internal literature review in 2019 exploring the factors affecting *research* response rates and strategies to maximise engagement and retention in research, which provided useful evidence to inform the strategies to be tested via a Tuition Partners reach and engagement RCT. There is evidence that endorsements and testimonies can help persuade respondents that their participation is important. These can include endorsements from an 'official' (funder/commissioner) or from other stakeholders/headteachers involved in the programme (Knibbs and Stobart, 2018; Watson and Anderson, 2005; Higton *et al.*, 2017).

There is also evidence that respondents engage because of 'altruistic motivation' i.e. they want to help and recognise the perceived benefits of an intervention or programme (Watson and Anderson, 2005; Jacob and Jacob, 2012; Kropf and Blair, 2005). Moreover, there is evidence that providing an accessible and credible account of the research evidence behind an intervention, supports headteachers' decision making (Nelson and O'Beirne, 2014; Nelson *et al.*, 2017).

Tuition (tutoring) is a highly effective way to improve learning outcomes when used alongside classroom teaching. A recent US review of 96 studies of tutoring interventions found substantial positive impacts of tutoring on both reading and maths outcomes, for children aged 3 to 18 (Nickow *et al.*, 2020). This review also found that tutoring was more effective when conducted by trained teachers than by non-professionals, though research has also demonstrated a positive impact of tutoring from volunteers (Ritter *et al.*, 2009).

Evidence for the benefits of tutoring has also been gathered in UK contexts. The Education Endowment Foundation's toolkits on one-to-one tuition (EEF, 2018a) and small group tuition (EEF, 2018b) provide evidence that both are effective interventions. Average impacts of between three and six months' additional progress have been found by four evaluations of one-to-one tuition interventions (Catch Up Numeracy, Catch Up Literacy, REACH, and Switch-on Reading), and a further evaluation of one-to-one and small group support (Perry Beeches). There is also some evidence to suggest that tutoring can be especially effective for disadvantaged pupils (Dietrichson et al., 2017; Torgerson et al., 2018).

The quality of the tuition is likely to be more important than the size of the group, and different subjects may benefit from different group sizes (EEF, 2018b). Small group tutoring, such as one-to-two or one-to-three can be more cost-effective than one-to-one tutoring. The EEF toolkit also provides evidence that tutoring should be structured and well-aligned to both the curriculum and pupils' needs.

This two-armed, school-randomised nimble RCT aims to test the impact of different recruitment messaging on schools' sign-up to receive tutoring for their pupils. The primary outcome will be whether schools sign a Memorandum of Understanding (MoU) or not, within a specified timeframe (three full school weeks). As the timeframe for schools to sign an MoU is relatively short, a secondary outcome will measure whether schools reply to the recruitment email to express interest or not. A light-touch Implementation and Process Evaluation (IPE) will include analysis of a trial data template completed by EM Tuition, a telephone interview with an appropriate member of the EM Tuition team to explore implementation, and 20 telephone interviews with school staff to explore: motivations for signing an MoU, views on the recruitment email, and suggestions for improving recruitment information. Findings from the trial will provide evidence about the best ways to engage schools in programmes to support their pupils, and ultimately contribute to improving the lives learners. of

### 2. Intervention

Table 1 below provides a brief description of the intervention which was co-developed between EEF, NFER and EM Tuition.

Table 1. Intervention description

INTERVENTION NAME	Recruitment emails containing either headteacher testimonial or empirical evidence of the benefits of tutoring for pupils (the planned recruitment emails are presented in Appendix 1).
WHY (THEORY/RATIONALE)	The existing evidence base indicates that both approaches may be effective in engaging schools in research-based activities. This study aims to build on this evidence to explore which approach is more effective in the specific context of engaging schools in catch-up tutoring provision for their pupils.
WHO (RECIPIENTS)	The recruitment email will be sent to headteachers in primary and secondary schools. EM Tuition will draw up a list of 2,000 schools in their geographic area (Hertfordshire, Essex and North London, East of England and Suffolk), with headteacher names and contact email addresses.  Schools will be identified from: i) a list of schools which have expressed an interest in the programme via the National Tutoring Programme (NTP)

	website; and ii) a top-up sample of schools within EM Tuition's geographical remit, identified via publically available information (e.g. the Government's Get Information About Schools website). Each school involved in this RCT will be newly approached by EM Tuition regarding tutoring support via the TP programme. However, it is possible that schools in the lists may be contacted by, and may sign up to receive tuition support from, other providers. It is also worth noting that schools can sign up to more than one provider.
	One of the following recruitment emails will be sent to a key contact in each school:
	An email with a testimonial from a headteacher(s) already involved in the programme receiving tutoring support from EM Tuition for their pupils (given current circumstances, this will include highlighting engagement with online tuition at home) (Arm one)
WHAT (MATERIALS)	An email which emphasises the empirical evidence relating to the benefits of tutoring (for example, highlighting in a short and accessible way the impacts of one-to-one and small group tuition from recent research including the EEF toolkit) (Arm two)
	Both emails will be exactly the same in other regards (such as providing an outline of EM Tuition's provision, and how to get in touch with EM Tuition), using a similar tone and phrases to those used by EM in their usual practice when they approach schools.
	EM Tuition will draft the emails in consultation with NFER to ensure the messaging is consistent with that agreed for each arm of the RCT.
	Recruitment messages will be emailed to schools. All other follow-up will remain as usual practice — i.e. EM Tuition follows up any replies from schools with phone calls and emails, to discuss their offer, answer queries, and provide MoU paperwork as needed.
WHAT (PROCEDURES)	EM Tuition will record in a trial data template: the date and time when emails are sent; which email was sent; bounce backs; whether or not a reply was received; whether or not the key contact expressed interest and reasons given; and whether or not the school signs an MoU and motivations for doing so.
	EM Tuition has been approved to provide tuition for 4,500 pupils across approximately 200 schools. They work across Hertfordshire, Essex and North London (and could potentially expand further into East of England, Suffolk, and the rest of London).
WHO (PROVIDER)	EM Tuition offer face-to-face and online tuition, in both primary and secondary schools, as well as in special schools. They have been approved to provide online tuition to students at home. For this RCT, EM will approach schools to cover both this current period of school closures (i.e. offering online tuition at home, or face-to-face if that is suitable for a school) and beyond.
HOW (DELIVERY MODE)	EM Tuition will send the relevant email individually (they propose this to be personalised with name) to the headteacher at each school on the list, rather than using a macro (the former is EM Tuition's preference). This will take a number of days. In order to avoid any differential impact of

	day/date sent <sup>1</sup> , EM Tuition will send the emails out alternately between the arms; either in small alternating batches or one for Arm 1, followed by one for Arm 2, one for Arm 1, one for Arm 2 and so on.
WHERE (LOCATION)	The email will be sent to schools in Hertfordshire, Essex and North London, East of England, and Suffolk.
WHEN & HOW MUCH (DOSAGE)	The emails will be sent out in February 2021. EM Tuition usually receive a response within two or three days to a marketing campaign; and where schools do reply and take up tutoring, it takes around three weeks to onboard them to MoU sign-up stage. Hence, each school will be exposed to the intervention for three full school weeks (excluding February half term holiday) from the date they were sent the email <sup>2</sup> . Each school will only be sent the recruitment email once during the trial period and the email will only be sent to one key contact in each school.
TAILORING (ADAPTATION)	The email messages were drafted in consultation between NFER and EM Tuition to be exactly the same in all regards other than the inclusion of either a headtecher testimonial or reference to empirical evidence of the benefits of tutoring. Once agreed, no tailoring or adaptation of the email messages is permitted.

# 3. Impact evaluation

Table 2 summaries the research questions, sample, dependent variables, independent variables, control variables, analytical method, and interpretation, which are discussed in further detail in the subsequent sections.

**Table 2: Summary of Research Questions** 

Research Question	Sample	Dependent Variable	Independent Variable	Control Variables (randomisation stratifiers)	Analytical Method	Interpretation
RQ1 – difference in proportion of MoUs signed in response to emails with testimonial vs evidence	S1 – 2,000 primary and secondary schools in target geographic areas	DV1 — signed MoUs	IV1 – type of email messaging (testimonial or evidence)	CV1 – school source (NTP EOI or not) CV2 – school- level % FSM CV3 – school phase	A1 – Intention to treat analysis	M1 - The testimonial/ evidence email is more effective in eliciting sign- up
RQ2 – difference in proportion of EOIs in response to emails with testimonial vs evidence	S1 – 2,000 primary and secondary schools in target geographic areas	DV2 – replies with EOI	IV1 - type of email messaging (testimonial or evidence)	CV1 – school source (NTP EOI or not) CV2 – school- level % FSM	A2 – Intention to treat analysis	M2 - The testimonial/ evidence email is more effective in eliciting EOIs

<sup>&</sup>lt;sup>1</sup> Such as any influence of day of the week; or any wider contextual factors relating to that date such as a government announcement relating to the Covid-19 situation and schools.

<sup>&</sup>lt;sup>2</sup> The analysis will take account of any variation in the date the email was sent to schools to identify a three-week intervention period (excluding school holidays) for each school.

		CV3 – school phase	

#### 3.1 Research questions

The impact evaluation is design to answer the following primary research question:

Research Question 1 (RQ1): What is the difference in the proportion of schools signing an MoU
to participate in the TP programme in response to an email with a testimonial about the benefits
of tutoring from another headteacher, compared to a summary of the empirical evidence on the
benefits of tutoring?

Also within the impact evaluation, the secondary research question for this trial is:

Research Question 2 (RQ2): What is the difference in the proportion of schools' expressions of
interest (EOIs) in participating in the TP programme in response to an email with a testimonial
about the benefits of tutoring from another headteacher, compared to a summary of the
empirical evidence on the benefits of tutoring?

#### 3.2 Design, participants, and outcome measures

The study participants will be key contacts in schools (this may include the headteacher, head of school, executive head, head of department). In cases where EM Tuition have multiple contacts in a school they will select one of these contacts with the most senior role (where known) to be contacted as part of the trial<sup>3</sup>. Schools taking part in the trial will be state-funded primary and secondary schools in geographic areas where EM Tuition offer support, primarily Hertfordshire, Essex and North London, but also may include the East of England, Suffolk and other areas of London.

A sample of approximately 2,000 schools (S1) has been identified by EM tuition. Schools were identified from a list of schools who had expressed an interest in participating in the TP programme via the NTP website by providing their name, school/Trust/Multi-Academy Trust (MAT) name and postcode, and contact details (72 per cent of schools in the sample). EM Tuition added the details of other schools in the areas they work from publicly available information on the Government's website 'Get information about schools' and schools' own websites (28 per cent of schools in the sample). The schools in the list had had no prior contact from EM Tuition about the NTP Tuition Partners programme.

EM Tuition will provide a list of schools to NFER for randomisation. Any nursery schools and post-16 only schools will be excluded from the sample as they are not eligible to access subsidised tuition within the TP programme, which targets Year 1 to Year 11 pupils. Special schools and alternative provision institutions (e.g. Pupil Referral Units) will be included in the sample as their pupils are eligible to access the TP programme.

The independent variable (IV1) is the type of recruitment email:

- headteacher testimonial of the benefits of tutoring for pupils
- empirical evidence of the benefits of tutoring for pupils.

The primary outcome will be:

 schools have signed a Memorandum of Understanding (MoU) (i.e. conversion rate from being contacted by email to signing an MoU joining the programme) within a three week window (excluding school holidays). This will be a binary measure of yes/no. (DV1)

The study will also explore a secondary outcome of schools' expressions of interest (EOIs) to receive tutoring support for their pupils from EM Tuition (DV2). This will be a binary measure of yes/no, where

<sup>&</sup>lt;sup>3</sup> Schools for which EM Tuition had multiple contacts will be included in the sample but it was agreed with EM Tuition that they would only send the recruitment email to one contact in these schools during the trial period. After the trial implementation period, and once the trial data template has been submitted, they will subsequently approach all contacts in schools with more than one contact.

'yes' will constitute a positive indication of interest, and 'no' will constitute a reply with a negative indication - declining the offer of tutoring from EM Tuition. Blank entries in the spreadsheet for this variable will indicate no response. The study will also record the date schools provide an EOI and the date schools sign an MoU, to establish if these outcomes are achieved within the specified three week intervention period or not, and will also be useful to understanding the duration of the process from initial email invitation to signing an MoU (analysed as part of the IPE).

In consultation between NFER and EM Tuition, a trial data template has been designed to capture data for the primary and secondary outcome, as well as brief additional implementation and process information (discussed further in the Implementation and Process Evaluation section 5 below). The trial data template includes pre-categorised drop-down options to aid ease of completion and analysis, as well as space to record additional comments in free text. EM Tuition will record the date and time when emails are sent, bounce backs<sup>4</sup>, whether or not a reply was received, whether or not the key contact expressed interest, date expression of interest received, reasons for their interest, and whether or not the school signs an MoU, date MoU signed, and the primary motivation for doing so. At the end of the trial implementation phase of sending recruitment emails and logging replies, EM Tuition will submit the completed trial data template to NFER for analysis.

Table 3 below summarises the trial design.

Table 3: Trial design

Trial design, ir	ncluding number of arms	Two-armed RCT, school-level randomisation			
Participants	inclusion criteria	Key contacts (e.g. headteachers) in primary and secondary schools in geographic areas of England (primarily Hertfordshire, Essex and North London)			
ranicipants	exclusion criteria	Nursery schools and post-16 only schools			
	target number	2,000 schools (1,000 schools per arm)			
Unit o	f randomisation	School			
Stratif	ication variables	School source (NTP EOI or not)  Proportion of pupils eligible for FSM (less than 24% and greater than or equal to 24%)  School phase (primary, secondary, all-through)			
	variable	MoU signed by school			
Primary outcome	measure (instrument, scale, source of outcome)	Schools records from trial data template (binary indicator: 1= school signs an MOU within 3 weeks of being sent email, 0= school does not sign an MOU within 3 weeks of being sent email).			
	direct measure or proxy?	Direct measure			

<sup>&</sup>lt;sup>4</sup> Where bounce backs (i.e. email delivery failure notifications) are received this will be recorded in the trial data template but no further attempt to contact the individual at that email will be made during the trial, nor will an alternative contact at the school be approached within the trial implementation period.

	baseline measure	N/A
	time of collection	3 full school term-time weeks
Secondary	variable(s)	EOI from school
	measure (instrument, scale, source)	Schools records from trial data template (binary indicator: 1= school returns EOI within 3 weeks of being sent email, 0= school does not return EOI within 3 weeks of being sent email).
outcome	baseline measure	N/A
	time of collection	3 full school term-time weeks
	adjusting for multiple comparisons?	No

#### 3.3 Randomisation

EM Tuition will provide NFER with a list of approximately 2,000 schools for randomisation. The list will include school name and postcode, and school source (i.e. whether the school was identified via EOIs on the NTP website or not), but no personal data. NFER will clean the dataset to: check for duplicate entries; identify each school in our Register of Schools (RoS) and match it to key school characteristics (phase and proportion of pupils eligible for Free School Meals); and to identify any schools in the sample that should be excluded as they are not eligible for the TP programme (e.g. nurseries and post-16 schools).

NFER will randomise the schools into two arms: arm one (email 1 – which includes a testimonial from a headteacher already involved in the programme) and arm two (email 2 - which includes a summary of the empirical evidence relating to the benefits of tutoring).

Randomisation will be carried out by a NFER statistician using the statistical package R. The code used to run the randomisation procedure will be stored for reproducibility and transparency. The statistician will not be blinded to group allocation.

Randomisation will be stratified by the following variables anticipated to be influential in schools' rates of sign-up to the TP programme, applied in this order:

- school source (whether a school expressed interest via the National Tutoring Programme (NTP) webpage or not)
- school-level FSM (less than 24% and greater than or equal to 24%<sup>5</sup>)
- phase of school (primary, secondary, all-through)<sup>6</sup>.

A trial data template will be shared with EM Tuition via a secure portal. This will be an excel template which includes the randomisation results (in locked fields to avoid accidental errors) and the cells requiring data entry during the trial delivery.

#### 3.4 Sample size calculations

-

<sup>&</sup>lt;sup>5</sup> Schools with no data available for the proportion of pupils eligible for Free School Meals will still be randomised but with the category 'missing' for this variable.

<sup>&</sup>lt;sup>6</sup> Schools with no data available for the phase of the school will still be entered for randomisation but with the category 'missing' for this variable.

We have based our sample size calculations on the basis of EM Tuition's success rate, up to the end of December 2020, for recruiting schools to sign-up to receive tutoring for their pupils – this was around one in 40; and this is also similar to that of other Tuition Partners we spoke to before the end of the year. However, it is not clear how these sign-up rates will be impacted by growing momentum and profile of the National Tutoring Programme and to what extent the trial sample includes schools already signed up with an alternative tuition provider.

Hence, if we assume a sign-up percentage of 2.5%, a trial with 1000 in each group would yield a 95% confidence interval around the difference in percentages between the two groups of +/-1.2 percentage points.

Although school closures early in 2021 could impact on sign-up rates, EM Tuition have been approved to offer online tuition to students at home which means they can approach schools with this offer during this period. The size of randomised group was decided in dialogue with EM Tuition after they had initially suggested a smaller number of schools. EM Tuition is confident they have the resources to create personalised emails to 2000 schools with the alternative messages and to monitor responses as well as sign-up.

# 4. Analysis

### 4.1 Primary outcome analysis

An intention-to-treat (ITT) analysis will be carried out to investigate the impact of the type of recruitment email sent on a school signing an MoU within three weeks of being sent the email. The ITT analysis will include all schools in the randomised sample, including those where the email was not successfully delivered (i.e. bouncebacks). A three-week intervention period will be defined for each school in the sample, based on the date they were sent the email and three full calendar weeks from that date (excluding school holidays). We will analyse the primary outcome using a logistic regression model analysed at the school level (A1).

The regression model is given by:

$$log \; log \; \left(\frac{\pi_i}{1-\pi_i}\right) = \beta_0 + \; \beta_1 arm_i + \beta_2 source_i + \beta_3 FSM_i + \beta_4 phase_i + \epsilon_i$$

where  $log\left(\frac{\pi_i}{1-\pi_i}\right)$  is the log odds of signing an MoU for school i,  $arm_i$  is a binary variable set to 1 if school i is in Arm 1,  $source_i$  a categorical variable indicating whether school i expressed initial interest in being part of the NTP or not (CV1),  $FSM_i$  is a binary variable which identifies whether school i is below or above/at the national average school level  $FSM^7$  (CV2), and  $phase_i$  is a categorical variable which identifies the school phase (CV3) for school i. The log odds ratio between the two arms is given by  $\beta_1$ .

Analysis of the primary outcome will be carried out using the Ime4 (Bates *et al.*, 2015) package in R (R Core Team, 2017). The analysis will report the odds ratio which will indicate any difference in the proportion of schools signing an MoU in arm 1 compared to arm 2. An odds ratio of greater than one would imply that the odds of signing an MoU would be higher in arm 1 compared to arm 2. An odds ratio of 1 would indicate no difference. The level of significance of any difference identified will be indicated by the confidence internal not including 1 and a significant p-value.

### 4.2 Secondary outcome analysis

Similar to the primary outcome analysis, an intention-to-treat (ITT) analysis will be carried out to investigate the impact of the type of email sent on a school returning an EOI. We will analyse the secondary outcome using a logistic regression model analysed at the school level (A2).

<sup>&</sup>lt;sup>7</sup> The national average school level FSM is 24%.

The regression model is given by:

$$log\left(\frac{\pi_i}{1-\pi_i}\right) = \beta_0 + \beta_1 arm_i + \beta_2 source_i + \beta_3 FSM_i + \beta_4 phase_i + \epsilon_i$$

where  $log\left(\frac{\pi_i}{1-\pi_i}\right)$  is the log odds of returning an EOI for school i,  $arm_i$  is a binary variable set to 1 if school i is in Arm 1,  $source_i$  a categorical variable indicating whether school i expressed initial interest in being part of NTP or not (CV1),  $FSM_i$  is a binary variable which identifies whether school i is below or above/at the national average school level FSM8 (CV2), and  $phase_i$  is a categorical variable which identifies the school phase (CV3) for school i. The log odds ratio between the two arms is given by  $\beta_1$ .

Analysis of the secondary outcome will be carried out using the lme4 (Bates *et al.*, 2015) package in R (R Core Team, 2017), and will be presented in the same way as for the primary outcome analysis.

### 4.3 Additional analysis

Additional exploratory analysis will be conducted to explore any variation between Arm 1 and 2 in the proportion of schools that expressed interest or signed an MoU at any point during the implementation period (i.e. beyond the specified three-week intervention period). The date when schools are sent the email will vary, meaning that schools emailed earlier in the implementation period will have longer to express interest or sign an MoU. We will run two separate logistic regression models using the same covariates as described in the outcome analyses.

# 5. Implementation and process evaluation

#### 5.1 Research questions

Guided by EEF's latest IPE guidance, the IPE will be a light-touch design and will have a particular focus on finding out why certain school engagement messages are more effective than others. We will explore the following research questions:

- Research Question 3 (RQ3): Did the emailing and recruitment process go as planned and was each school sent the correct email message as assigned by the randomisation?
- Research Question 4 (RQ4): Did the email elicit a reply from schools?
- Research Question 5 (RQ5): Why, after being approached, do some schools sign an MoU to participate in the programme? (e.g. reasons for expressions of interest, motivations for signing MoU, other sources of information/influence)
- Research Question 6 (RQ6): Why, after being approached, do some schools not sign an MoU to participate in the programme?
- Research Question 7 (RQ7): Does the email messaging affect schools' decisions to sign up to the programme?
- Research Question 8 (RQ8): How could initial information in tutoring recruitment emails be improved?
- Research Question 9 (RQ9): What other similar interventions are schools running (e.g. Academic mentors, other tutoring or catch-up programmes), and how does this influence schools' interest in participating in the programme?

#### 5.2 Research methods

The IPE will involve the design of a trial data template to be completed by EM Tuition during the intervention period and submitted to NFER at the end of the trial period for analysis. The trial data template was developed in consultation with EM Tuition. The trial data template will collect data on:

- Type of email message sent (email 1 or 2)
- Date and time email message sent
- Email delivery failures/bouncebacks

<sup>&</sup>lt;sup>8</sup> The national average school level FSM is 24%.

- Whether or not a reply has been received
- Whether or not an expression of interest (EOI) has been received
- Date EOI received
- Reasons for interest
- Signed MoU and date
- Whether the email affected decision to sign-up
- Motivations for signing up
- For schools that provided an EOI, information/comments about stage in follow-up process (where MoU not yet signed), if known.

This will enable the IPE to analyse fidelity (to the assigned arm of the trial) and implementation factors (e.g. when, in the trial period, did schools receive the email and how long did they have to reply; what proportion of emails were successfully delivered). It will also enable analysis of schools' responses to the emails (whether they replied or not, reasons for interest, motivations for signing an MoU, date signed MoU).

The IPE will also involve a member of the evaluation team conducting a post-intervention interview with the most appropriate contact at EM Tuition to explore: how the emailing/recruitment process worked; to what extent it followed the planned approach, usual practice and expectations; and challenges faced. This will provide valuable context for understanding the outcomes of the recruitment intervention.

The IPE will also involve NFER process researchers carrying out up to 20 telephone interviews with school staff. Interviews will predominantly focus on schools which sign up to the programme in order to explore effective recruitment approaches (approximately 10 interviews). A small number of interviews will be conducted with schools that expressed interest in the programme but had not signed MoUs by the end of the intervention period in order to explore their experiences of the recruitment process (approximately 5 interviews). A small number of interviews will be conducted with schools that did not sign up to the programme and will focus on schools that returned a reply to the recruitment email but declined to participate to enable exploration of the reasons for this and consideration of the recruitment email in this context (approximately 5 interviews).

The sampling frame for interviews will take into account phase (primary/secondary), school source (NTP EOI or not), school-level FSM, and whether or not the school is part of a MAT – to ensure a spread of school types and qualitative exploration of the influence of these factors. Depending on the timing of selection, we could also take into account the nature of replies/reasons collated by EM Tuition, to ensure a spread of responses and reasons.

It is likely that the school interviews will be with the senior leader/key contact invited to make the decision about the school's participation in the programme. Each qualitative telephone interview will be a short, highly-focused interview taking approximately 20 minutes.

We will develop a semi-structured interview schedule, and anticipate that it will explore the following: their reactions when they received and read the email, why they did/didn't sign up for the programme and the decision-making process (including, if the school is part of a MAT, whether the decision was taken at the school or MAT-level), any other ways in which they have heard about the programme, participation in other similar tutoring/catch-up interventions and how this influenced decision-making, what motivates them generally to take part in educational programmes and research, and any suggestions they may have for improving messaging sent to schools about programmes and research.

The interviews will take place towards the end of the project (mid-April to early-May 2021), following the school recruitment emails, to enable us to select some schools which have and have not decided to participate in the programme.

### 5.3 Analysis

The process evaluation will explore descriptively the information provided in the trial data template, completed by EM Tuition, described in the design section above. The analysis will include coding

responses and descriptive frequencies of responses. Interviews with the provider and school staff will be recorded (where interviewees give permission) and written up into a template following the interview schedules, which will be designed to address the research questions. We will analyse the interview data around the question themes (e.g. take up, reasons, wider context, suggestions for improvements). Responses will be coded – using a mixture of inductive coding – with open coding to identify categories of response arising from issues that are salient in interviewees' narratives, and deductive coding – structuring responses to map against the pre-defined research questions. Findings from the IPE interviews will be integrated in the report to add context and understanding to the impact findings.

Table 5: IPE methods overview

Research methods	Data collection methods	Participants/ data sources	Data analysis methods	Research questions addressed
Trial data template	Excel template completed by EM Tuition recording emails sent, replies, MoUs signed and motivations	School key contacts All schools in sample (approx. 2,000)	Descriptive analysis Basic frequencies Coding/ categorisation	RQ3, 4, 5 and 7
Telephone interview with provider	Semi-structured interview	Key contact at EM Tuition	Thematic analysis	RQ3 and 8
Telephone interviews with school staff	Purposive sub- sample based on analysis of trial data template, semi- structured interviews	School key contacts 20 schools (including 10 schools that signed up; 5 that did not; and 5 that returned EOIs but had not signed MoUs)	Thematic analysis (based on inductive and deductive coding)	RQ5, 6, 7, 8 and 9

#### 6. Personnel

EM Tuition are the delivery provider and the team will be led by Helen Georgiou at EM Tuition.

NFER are the independent research organisation running the RCT. The NFER project will be directed by Pippa Lord, and managed on a day-to-day basis by Jennie Harland, with oversight and quality assurance from Dr Ben Styles (Head of NFER's Education Trials Unit, for RCT QA), Kathryn Hurd (Head of Survey Operations, for data management and operational liaison with providers) and David Sims (Research Director, IPE QA). Afrah Dirie will be the project statistician and Eleanor Bradley a project researcher. The Project Director and senior team will ensure alignment within the overall national TP evaluation, whilst other team members will work specifically on the nimble RCT.

# 7. Risks

Table 6 below sets out the key risks for the study, their likelihood of occurring and likely magnitude of impact, along with approaches to mitigate each risk.

Table 6: Risks

Risk	Likelihood of occurring	Magnitude of impact	Strategy to mitigate risk	Responsible party	Timeframe
Covid-19 restrictions, school closures, and schools signing up to alternative tuition providers, mean schools do not respond to recruitment email (i.e. reason might not be related to the messaging per se) and hence the response rate is lower than in sample size calculations	High	Medium	EM Tuition offer online tuition for students at home which could increase interest from schools in current circumstances.  Secondary outcome provides earlier indication of school interest and intentions.  Extend the period for sending recruitment emails and monitoring responses.	Research team EM Tuition	Delivery phase
Insufficient capacity (e.g. due to Covid-19 sickness)	Moderate	Moderate	NFER has digital systems in place to enable most staff to work at home and are implementing Covid-secure workplaces, with appropriate mitigations to reduce the risk of contagion. Tasks can be re-allocated to another appropriately-skilled colleague. Clear and accurate project documentation will support continuity in the event of any team changes.	Research team	Throughout project
Personalised emails sent from one person at EM Tuition – risk to delivery if sender is off sick	Moderate	High	EM Tuition will look into sending the emails from an organisation address. Should they feel the personalised address is more appropriate, they will ensure admin rights can be amended for this email address/replies automatically forwarded to another member of staff, should the sender be off sick.	EM Tuition	Delivery phase
Errors in initial school list and/or trial data template	Moderate	Moderate	The list of data required for the evaluation will be pre-specified and agreed with EM Tuition. Use of a template with cells locked to prevent errors and drop down response options to aid	NFER	Randomisation

			efficient and consistent data entry. Time has been allocated for cleaning the datasets and, if necessary, additional cleaning and checks could be implemented.	EM Tuition	Delivery phase Analysis
Covid-19 restrictions and school closures mean schools do not respond to the invitation to participate in interviews	High	Moderate	Extend the number of schools invite to take part in telephone interviews.  Offer flexibility in when researchers interview key contacts in schools (including availability of multiple researchers at different times of the day).  Concentrate interviews in a higher proportion of schools that have taken up the offer of TP support (i.e. signed MoUs) as they are likely to be more engaged.	Research team	IPE data collection

#### 8. Timeline

Table 7 below sets out the timeline for the trial.

**Table 7: Timeline** 

Dates	Activity	Staff responsible/ leading
January 2021	<ul> <li>Set up meetings x 2</li> <li>Develop emails and brief TIDieR framework</li> <li>Develop data specification / trial data template</li> <li>Draft privacy notice and data sharing agreement</li> <li>Clean school list, and match in variables (such as primary/secondary)</li> <li>Draft mini nimble protocol, including analysis plan section</li> <li>Randomise schools</li> </ul>	NFER/EEF/EM Tuition NFER NFER NFER
February 2021	<ul> <li>Provider sends emails to schools (from 3<sup>rd</sup>         February)</li> <li>Provider keeps ongoing record of responses</li> <li>EEF review protocol</li> </ul>	EM Tuition EM Tuition EEF/NFER
March 2021	<ul> <li>Finalise and publish protocol</li> <li>Design IPE interview schedules</li> <li>EM Tuition provides outcome data (including data on other agreed fields) three full weeks after last email sent – 23<sup>rd</sup> March</li> <li>Select headteachers/school leaders for interview</li> <li>Impact analysis commences</li> </ul>	EEF/NFER NFER EM Tuition NFER NFER
April 2021	<ul> <li>Approach headteachers/school leaders for interview (after Easter holidays)</li> <li>Conduct post-intervention interview with provider</li> <li>Conduct telephone interviews with school staff</li> <li>Start IPE analysis</li> </ul>	NFER/EM Tuition NFER NFER
May 2021	<ul> <li>Complete telephone interviews with school staff</li> <li>Complete IPE analysis</li> <li>Reporting</li> <li>Submit report</li> </ul>	NFER
June 2021	<ul> <li>EEF, peer and provider review</li> <li>Report edits and publish / disseminate across TP programme</li> </ul>	EEF/EM Tuition NFER/EEF

### 9. Ethics and registration

The trial will be registered on the ISRCTN (International Standard Randomised Controlled Trial Number) registry (<a href="https://www.isrctn.com/">https://www.isrctn.com/</a>). The study will be conducted in accordance with NFER's Code of Practice, available at: <a href="https://www.nfer.ac.uk/media/1166/codeofpractice.pdf">https://www.nfer.ac.uk/media/1166/codeofpractice.pdf</a>.

School key contacts/headteachers will be informed of the study in the recruitment emails and will be able to view full details about the study in a link to the Privacy Notice (see further details in the Data protection section below) embedded in the recruitment emails. The Privacy Notice sets out what data is being gathered as part of the trial and gives school contacts the opportunity to withdraw from data processing if they have objections to this by contacting EM Tuition. Key contacts who reply to the recruitment emails (without withdrawing from data processing) will therefore provide the ethical agreement for participation in the trial.

### 10. Data protection

All data gathered during the trial will be held in accordance with the data protection framework created by the Data Protection Act (DPA) 2018 and the General Data Protection Regulation (GDPR) 2016/679, and will be treated in the strictest confidence by the NFER and EM Tuition.

NFER and EM Tuition are joint data controllers for the RCT and decide how and what data will be collected and used.

The legal basis for processing personal data for this RCT is covered by:

GDPR Article 6 (1) (f) which states that 'processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of the personal data'.

NFER and EM Tuition have carried out a legitimate interest assessment, which demonstrates that the RCT fulfils NFER's and EM Tuition's core business purposes; undertaking research, evaluation and information activities in the case of NFER, and to enable and inform recruitment to tutoring services in the case of EM Tuition. The RCT has broader societal benefits and will contribute to improving the lives of learners by providing evidence about the best ways to engage schools in catch-up programmes to support their pupils.

Personal data is required to meet the research aims but processing does not override the data subject's interests. No individual or school will be identified in any report.

NFER and EM Tuition will sign a Data Sharing Agreement that sets out the roles and responsibilities for this trial. This includes a description of the nature of the data being collected and how it will be shared, stored, protected and reported by each party. In addition, the recruitment email sent to schools will notify them of the study and provide a link to a Privacy Notice (see: <a href="https://www.nfer.ac.uk/media/4307/eere\_2\_privacy\_notice.pdf">https://www.nfer.ac.uk/media/4307/eere\_2\_privacy\_notice.pdf</a>) explaining the nature of the data being processed about school key contacts, how it will be collected, and how it will be shared with NFER. The Privacy Notice sets out how school key contacts can withdraw from their personal data being shared with NFER and processed for the purposes of the trial. NFER will ensure that Privacy Notices and data sharing agreements for this R&E RCT are in line with the privacy notices and agreements already in places for the overarching evaluation of Tuition Partners.

EM tuition obtained a list of schools (names and postcodes) that had expressed an interest in participating in the TP programme via the NTP website<sup>9</sup>. EM Tuition added the details of other schools in the areas they work from publicly available information on the Government's website 'Get information about schools' and schools' own websites. EM Tuition will use the following personal data in order to send school key contacts information about the TP programme tutoring support: key contact name/headteacher's name; role; email address/headteacher's email address.

EM Tuition will share the following personal data with NFER about replies to the recruitment email to enable analysis of different recruitment approaches: key contact names, roles and email addresses; email bounce backs; whether or not anyone from the school has responded and when; whether or not anyone from the school expresses firm interest in the tutoring support; whether or not any contacts at the school have signed a Memorandum of Understanding (MoU) to receive pupil tuition through the programme; date of MoU sign-up; motivations for signing an MoU.

NFER will also collect further personal data via telephone interviews with the key contact in a sample of schools. Where school staff agree to participate in an interview, the interviews will gather personal

-

<sup>&</sup>lt;sup>9</sup> When respondents expressed interest in participating in the programme via the NTP website they were asked to confirm that they agreed to their data being shared for the purposes of the NTP programme with the EEF and with an approved list of Tuition Partners. EM Tuition is identified on the approved list of tuition partners.

data including their views on, for example: the recruitment email, motivations for signing up to TP or not, what else they know about TP, and suggestions for improving recruitment information.

One month after the publication of the evaluation report, de-identified data (no individual's names, contact details or job roles) and analysis code will be submitted to the UK Data Archive for storage, as part of transparent analysis and reporting of RCTs. The data will include the school name. No individuals will be identifiable in the dataset.

School contacts' personal data will be shared between EM Tuition and NFER. All data will be shared via secure portal and will be held securely.

NFER will securely delete any personal data relating to this study within one year after the publication of the final report for the RCT (publication is expected to be June 2021). EM Tuition will delete any personal data relating solely to this RCT at the end of the recruitment exercise (currently expected to finish in April 2021). Personal data collected for delivering the TP programme and tuition will be kept longer and is covered by a separate privacy notice which schools will be provided with if they sign-up to the TP programme.

### References

Bates, D., Maechler M., Bolker, B., Walker, S. (2015). Fitting Linear Mixed-Effects Models Using Ime4. *Journal of Statistical Software*, 67(1), 1-48. doi:10.18637/jss.v067.i01.

Dietrichson, J., Bøg, M., Filges, T., & Klint Jørgensen, A. M. (2017). Academic interventions for elementary and middle school students with low socioeconomic status: A systematic review and meta-analysis. *Review of Educational Research*, 87(2), 243-282. Available at: https://doi.org/10.3102/0034654316687036

Education Endowment Foundation (2018a). *One to one tuition*. [online]. Available at: <a href="https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/one-to-one-tuition/">https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/one-to-one-tuition/</a>

Education Endowment Foundation (2018b). *Small group tuition*. [online]. Available at: <a href="https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/small-group-tuition/">https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/small-group-tuition/</a>

Higton, J., Leonardi, S., Richards, N., Choudhoury, A., Sofroniou, N., Owen, D. (2017). *Teacher Workload Survey 2016 Technical Report.* [online]. Available: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/59">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/59</a> 2502/TWS 2016 FINAL Technical Report Feb 2017.pdf [20 March 2019].

Jacob, R.T. and Jacob, B. (2012). Prenotification, incentives, and survey modality: an experimental test of methods to increase survey response rates of school principals', *Journal of Research on Educational Effectiveness*, **5**, 4, 401-408. [online]. DOI <u>10.1177/2158244018796412</u>.

Knibbs and Stobart (DfE, 2018). *NQT and provider-level response rates: exploratory research. DfE Research Report RR83.* (Ipsos MORI). Available online: <a href="https://www.gov.uk/government/publications/newly-qualified-teacher-nqt-and-provider-level-response-rates-exploratory-research">https://www.gov.uk/government/publications/newly-qualified-teacher-nqt-and-provider-level-response-rates-exploratory-research</a> [31 January 2019].

Kropf, M. E. and Blair, J. (2005). 'Eliciting Survey Cooperation: Incentives, Self-Interest, and Norms of Cooperation', *Evaluation Review*, **29**, 6, 559-575 2005. (EJ723381) [online]. DOI 10.1177/0193841X05278770.

Nelson, J. and O'Beirne, C. (2014). Using Evidence in the classroom: what works and why? (Slough, National Foundation for Educational Research).

Nelson, J., Mehta, P., Sharples, J. and Davey, C. (2017). Measuring Teachers' Research Engagement: findings from a pilot study (EEF, London). Available online: <a href="https://educationendowmentfoundation.org.uk/public/files/Evaluation/Research\_Use/NFER\_Research\_

Nickow, A., Oreopoulos, P., & Quan, V. (2020). The impressive effects of tutoring on prek-12 learning: A systematic review and meta-analysis of the experimental evidence. *NBER Working Paper*, (w27476).

R Core Team (2017). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <a href="https://www.R-project.org/">https://www.R-project.org/</a>

Ritter, G. W., Barnett, J. H., Denny, G. S., & Albin, G. R. (2009). The effectiveness of volunteer tutoring programs for elementary and middle school students: A meta-analysis. *Review of Educational Research*, 79(1), 3-38.

Torgerson, C., Bell, K., Coleman, E., Elliott, L., Fairhurst, C, Gascoine, L., Hewitt, C. and Torgerson, D. (2018). *Tutor Trust: affordable primary tuition. Evaluation report and executive summary.* Project Report. Education Endowment Foundation.

Watson, J. and Anderson, N. (2005). 'Pinnacles and Pitfalls: researcher experiences from a web-based survey of secondary teachers', *E-Learning*, **2**, 3, 276-284. [online]. 10.2304/elea.2005.2.3.7

# **Appendix 1: Planned recruitment emails**

# **Email 1: testimonial (Arm 1)**

National Tutoring Programme – support for schools

Dear ......

I am contacting you from EM Tuition, one of the organisations that has been approved to offer the government-subsidised National Tutoring Programme (NTP) as part of its Catch-up Strategy. I'm sure that, like many of the schools we work with, you are concerned about the impact the Covid-19 pandemic is having on your pupils' learning. We appreciate that many of your pupils may have fallen behind with their learning, especially those from disadvantaged backgrounds.

EM Tuition is a National Tuition Partner. We can provide qualified KS1- KS4 tutors to deliver 15 hour blocks of tutoring for these pupils through one to one and small group interventions, face to face and online. As this is highly subsidised, it is a very cost effective way of catching up with learning, increasing attainment and motivation.

We would like to invite you to take advantage of this offer for your school.

#### **Testimonial**

At Hillmead School in Bishops Stortford, Hertfordshire, EM Tuition has been delivering face to face tutoring to small groups of three pupils within school, and one-to-one tutoring online. The school's Headteacher, Michelle states: 'our pupils really enjoy their sessions, both the online ones and the face-to-face small group sessions. The tutors are knowledgeable and take the time to get to know the children. We are seeing good progress from our students already and are looking forward to continuing this partnership'.

During this academic year, including the current period in which schools are partially open, we can help by either coming into your school and working with your key worker/vulnerable pupils, or we can provide online tuition to pupils who are learning remotely from home through our dedicated online tutoring system.

If you would like to find out more about our qualified tutors and what interventions we can provide, please do contact me for a chat.

If you do not wish to hear about the support EM Tuition can provide to your school, please let us know and we will ensure you are not contacted again.

You are receiving this email as part of the NTP and its evaluation. A privacy notice detailing how we use your personal data can be found at the following link: <a href="https://www.nfer.ac.uk/key-topics-expertise/nfer-education-trials-unit/current-projects/national-tutoring-programme-tuition-partners-reach-and-engagement-randomised-controlled-trial/">https://www.nfer.ac.uk/key-topics-expertise/nfer-education-trials-unit/current-projects/national-tutoring-programme-tuition-partners-reach-and-engagement-randomised-controlled-trial/</a>

### Email 2: evidence base (Arm 2)

National Tutoring Programme – support for schools

Dear ......

I am contacting you from EM Tutoring, one of the organisations that has been approved to offer the government-subsidised National Tutoring Programme (NTP) as part of its Catch-up Strategy. I'm sure that, like many of the schools we work with, you are concerned about the impact the Covid-19 pandemic is having on your pupils' learning. We appreciate that many of your pupils may have fallen behind with their learning, especially those from disadvantaged backgrounds.

EM Tuition is a National Tuition Partner. We can provide qualified KS1-KS4 tutors to deliver 15 hour blocks of tutoring for these pupils through one to one and small group interventions, face to face and online. As this is highly subsidised, it is a very cost effective way of catching up with learning, increasing attainment and motivation.

We would like to invite you to take advantage of this offer for your school.

#### The tutoring evidence base

Did you know tuition (tutoring) is a highly effective way to improve learning outcomes? A review of 96 studies of tutoring interventions found substantial positive impacts in reading and maths outcomes (Nickow, Oreopoulos, & Quan, 2020), and the Education Endowment Foundation's Toolkit provides evidence that both one-to-one tuition (EEF, 2018a) and small group tuition (EEF, 2018b) are effective interventions. 'Evaluations of one-to-one tuition interventions (Catch Up Numeracy, Catch Up Literacy, REACH, and Switch-on Reading) found average impacts of between three and six months' additional progress.' (EEF 2018a). There is also evidence to suggest that tutoring can be especially effective for disadvantaged pupils (Dietrichson et al., 2017; Torgerson et al., 2018).

During this academic year, including the current period in which schools are partially open, we can help by either coming into your school and working with your key worker/vulnerable pupils, or we can provide online tuition to pupils who are learning remotely from home through our dedicated online tutoring system.

If you would like to find out more about our qualified tutors and what interventions we can provide, please do contact me for a chat.

If you do not wish to hear about the support EM Tuition can provide to your school, please let us know and we will ensure you are not contacted again.

You are receiving this email as part of the NTP and its evaluation. A privacy notice detailing how we use your personal data can be found at the following link: <a href="https://www.nfer.ac.uk/key-topics-expertise/nfer-education-trials-unit/current-projects/national-tutoring-programme-tuition-partners-reach-and-engagement-randomised-controlled-trial/">https://www.nfer.ac.uk/key-topics-expertise/nfer-education-trials-unit/current-projects/national-tutoring-programme-tuition-partners-reach-and-engagement-randomised-controlled-trial/</a>