

Trial Evaluation Protocol

Evaluating the effectiveness of Eedi (previously Diagnostic Questions) formative assessment programme



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PROJECT TITLE	Evaluating the effectiveness of Eedi (previously Diagnostic Questions or DQ) formative assessment programme on raising attainment in mathematics at GCSE
DEVELOPER	Eedi and the Behavioural Insights Team
EVALUATOR	AlphaPlus and Manchester Metropolitan University (MMU)
PRINCIPAL INVESTIGATORS	Andrew Boyle (AlphaPlus) and Stephen Morris (MMU)
PROTOCOL AUTHOR(S)	Kathy Seymour and Stephen Morris
TRIAL DESIGN	Two-arm cluster randomised controlled trial with random allocation at the school level
AGE RANGE	14-16, KS4
NUMBER OF SCHOOLS	180
NUMBER OF PUPILS	30,240
PRIMARY OUTCOME	GCSE Maths attainment (point score)

Protocol version history

VERSION	DATE	REASON FOR REVISION
1.0	03/05/2018	Original Protocol

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Intervention

This study seeks to examine whether pupils' exposure to Eedi formative question setting platform and marking system for mathematics in secondary schools raises attainment in mathematics at GCSE. It also seeks to understand whether teacher workload, for teachers using Eedi for mathematics instruction at Years 10 and 11, is reduced.

The intervention is an online question setting and diagnostic platform for instruction in mathematics at GCSE known as Eedi (previously known as diagnostic questions), developed by Eedi (<https://www.eedi.co.uk/>). The core components of the programme are as follows:

- **Schools** assign formative assessment 'quizzes' aligned to their exam board's Scheme of Work. Eedi instantly populates a calendar of multiple choice quizzes for the entire year. If they wish, teachers can manually adjust the ordering/scheduling of the quizzes. There are two quizzes per topic in the Scheme of Work.
- **Students** complete quizzes each week according to the Scheme of Work set by their teacher. Each quiz comprises ten questions and each question has four multiple choice answers. Each incorrect answer is designed to diagnose a specific 'misunderstanding'. Quizzes are marked through Eedi. Students are then prompted to review their answers with feedback targeting their specific misunderstanding. Students are also given targeted learning materials from Oxford University Press (OUP).
- **Teachers** do not have to mark quizzes, Eedi marks them automatically. Teachers can review their class's scores on Eedi, identify common misunderstandings and if necessary, send additional feedback to all students making that mistake.
- **Parents** can receive automated text messages about new quizzes, students not completing quizzes as required, or what topics are being covered in class. More detailed reports are available by logging in to the Eedi website.

The intervention will be delivered to school pupils entering Year 10 from September 2018 studying mathematics at GCSE, in around 90 English state secondary schools (intervention schools). The intervention will be delivered over two school years (Years 10 and 11 for this cohort).

Training for schools is delivered by Eedi. Each school appoints a project lead to liaise with Eedi. Eedi work with the school project lead to assist them in setting up the school's scheme of work on Eedi. Eedi provide two hours of training in person to the school's maths department during the spring/summer terms 2018. This addresses the following:

- Context for this study and the importance of formative assessment
- Monitoring quizzes and whole class performance
- Giving feedback and setting further quizzes
- Parental alerts
- How to provide online access for all students
- How to use Eedi's technical support

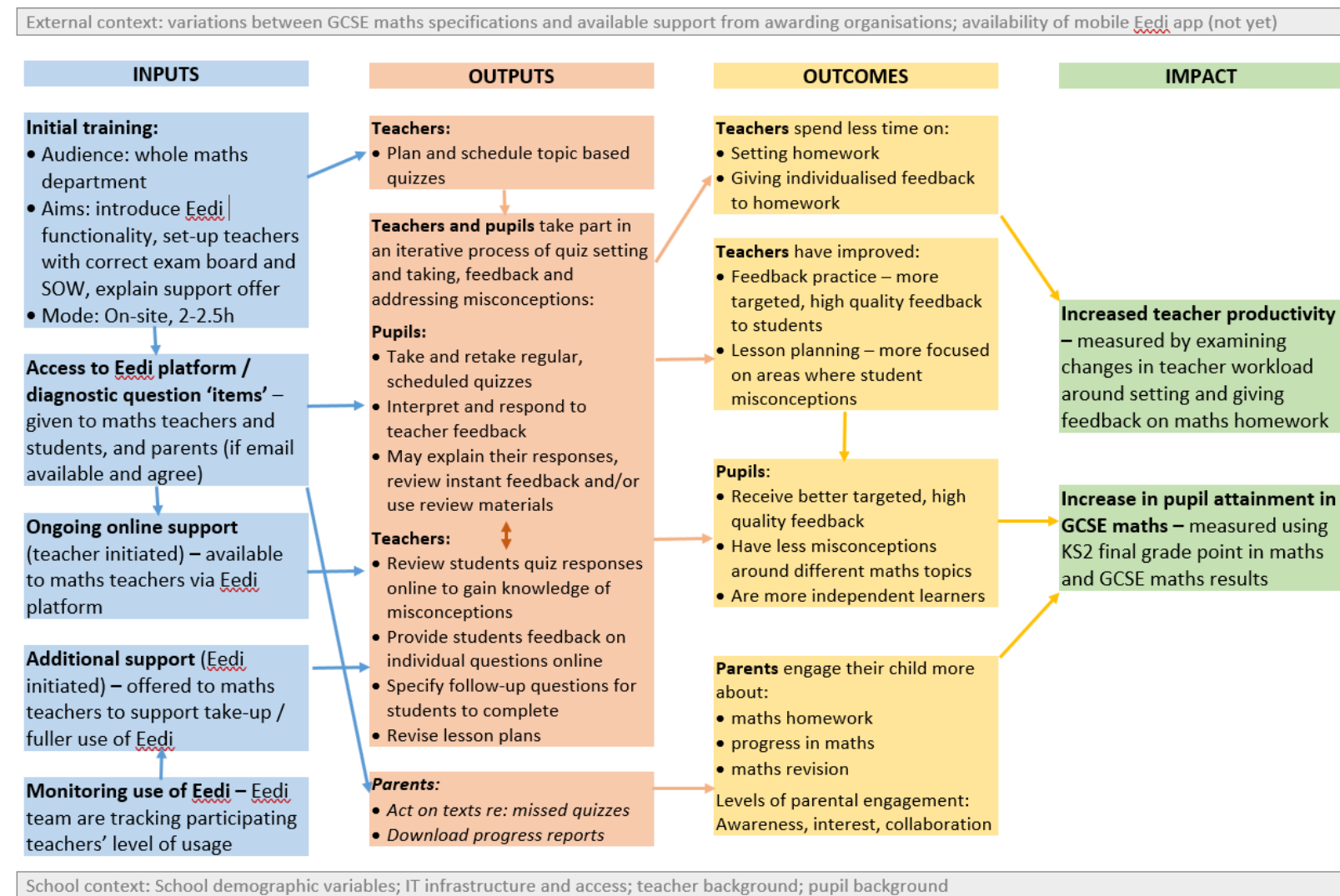
Eedi provide additional training to school project leads, which covers:

- Troubleshooting and minor problems
- Access to online support
- Further support for ensuring access to Eedi for all students
- Liaison with Eedi's account manager

Intervention schools have access to online technical support available 8AM-8PM, Monday to Friday which is an increase in capacity agreed for the trial. Eedi monitor usage of the Eedi platform and aim to proactively approach schools with the offer of support should problems become apparent. Parents, pupils and schools are given access to OUP materials that address misconceptions identified in Eedi throughout the life of the study (this is usually an additional paid for service, but for the trial free access has been granted to all intervention schools). Schools are funded up to £1000 for text messaging associated with the operation of Eedi. Eedi will send and pay for the texts directly. Initial discussions resulted in agreement that control schools are also offered an incentive of £1,000 to take part and adhere to their responsibilities in the trial (as set out in the MOU), this will be paid at the end of trial period (July 2020).

The logic model below (Figure 1) captures our current understanding of the programme theory and rationale for, the intervention. This is based on the background information provided on the intervention before and during the project set-up process, and in the theory of change workshop undertaken by the evaluators with the Eedi team in December 2017. The inputs describe the core elements of the intervention i.e. who is doing what to or with whom. The outputs might here be conceived as necessary, intermediary outcomes of the intervention and involve assumptions about the pre-conditions for the intervention to work as expected. The outcomes articulate the short and medium term positive changes the intervention is seeking to achieve in pupils, whereas the impact is about longer term as well as socially important intended changes. Taken together the outputs and impact text boxes explicate the rationale for the intervention.

Figure 1: Logic model articulating the Eedi intervention



Significance

The intervention aims to improve attainment among Year 10 and 11 secondary school pupils in mathematics as measured at GCSE as well as reduce teacher workload. This will be achieved through providing better quality and faster feedback on maths homework for pupils, teachers and parents.

It is well established that formative assessment and feedback for pupils improves academic attainment (Kingston and Nash, 2011; Black and William, 2009) and that frequent feedback for teachers on their pupils' progress helps them to improve their teaching (Hattie, 2008; Fryer 2016). Similarly, recent studies that have examined the effects of improving the flow of information from schools to parents have shown a positive effect on attainment (Bergman, 2017; EEF, 2016). Digital formative assessment tools (DFATs), such as Eedi, that facilitate this feedback can be beneficial for attainment, though it depends on how they are configured (Sung et al, 2016).

The intervention also aims to reduce teacher workload. The EEF's recent review of marking noted that reform of marking policies was the highest workload-related priority for 53% of respondents to the Government's 'Teacher Workload Challenge' survey (Elliott et al, 2016; DfE, 2014). Eedi aims to minimize the time taken to deliver high quality feedback at scale, which has the potential to not only increase attainment in the short run but also improve teacher motivation and retention in the medium and long term.

Methods

Research questions

The impact evaluation is designed to answer the following questions:

- What is the effect of Eedi on attainment in mathematics at GCSE?
- Does the effect of Eedi on mathematics vary according to whether pupils have ever qualified for free school meals?
- Does the effect of Eedi on mathematics vary by gender?
- What is the effect of Eedi on teacher workload?

The process evaluation component will address the following questions:

- How is the intervention implemented? What are the enablers and barriers to implementation of the programme? Is implementing the programme feasible?
- What constitutes 'usual practice' in the intervention and control schools, and does this change over the duration of the trial? Are control schools using similar interventions to Eedi that might be considered close substitutes for it?
- To what extent has the programme changed the working environment and/or pedagogy of teachers in the intervention schools?
- What are intervention-school teachers' perceptions of 'how' and 'why' the programme is making a difference, if at all, and to what extent might this be different depending, for example, on student groups?
- How and why does the implementation of the programme vary? To what extent does any variability affect the achievement of expected outcomes?
- What are the costs to schools of delivering Eedi?

Design

This study is designed as a two-arm, parallel, randomised controlled trial with whole schools assigned at random to either intervention (exposure to Eedi) or control conditions (non-exposure to Eedi) on a 1:1 basis.

Trial type and number of arms		Two
Unit of randomisation		School
Stratification variables (if applicable)		Region
Outcomes	primary	GCSE point score in Mathematics
	secondary	Teacher workload (hours per week)
Outcome sources (instruments, datasets)	primary	National Pupil Database
	secondary	Survey of teachers

Randomisation

Schools will be allocated to intervention and control conditions using stratified or constrained random allocation on a 1:1 basis using SPSS v24. Randomisation will be carried out separately in two batches in order that training in intervention schools can commence prior to recruitment of all 180 schools being confirmed. The batches are likely to comprise 120 and then 60 schools. Randomisation will be carried out by an independent researcher from the Department of Sociology at Manchester Metropolitan University (MMU) who will have no further role in the study and will be 'blind' as to the identity of schools.

Randomisation will be stratified by region and batch. Stratification by region is justified on the basis that training schools in the use of Eedi will be conducted by teams working regionally. For pragmatic reasons, it is useful for the number of schools requiring training not to vary too widely from region to region.

Details of the schools that have signed a memorandum of understanding will be sent to MMU by Eedi in two batches.¹ Subsequent to this the researcher will follow the procedures outlined here separately for each of the two batches of schools:

1. Schools will be arranged into nine strata based on region of England (there are nine regions) – we therefore anticipate stratum will contain around 13-14 schools in batch one and six to seven schools in batch two.
2. The researcher will select a six-digit random number seed that will be stored in the SPSS program and draw for each school a random number from a 0,1 uniform distribution
3. Schools will be arranged in each stratum in ascending order based on the random number drawn for each school
4. In strata that have an odd number of schools, the school with the largest random number will be removed from the stratum and set aside. Each stratum will as a result of this procedure contain an even-number of schools
5. Within each stratum, the remaining schools will be divided in half on the basis of their random number with schools in the lower half of the distribution assigned to the intervention while the upper half to control;
6. The schools removed from the strata at Step 4 above are then assembled and a new six digit random number seed selected and stored in the SPSS program. Each of these schools will then be assigned a new random number from a 0,1 uniform distribution and arranged in ascending order

¹ These details are school URN, pupil UPN for all pupils within the focal cohorts that have not been withdrawn from the study, school post-code, date of birth, sex, ever-Free School meals and current form or class for instruction in mathematics

7. If there are an odd number of schools the school with the largest value according to this new random number will be set aside
8. The remaining schools are then divided in half on the basis of the second random number draw with the lower half assigned to intervention the upper half to control
9. Finally, a third six-digit random number seed is set in SPSS and stored in the program. A single value is drawn from a 0,1 uniform distribution. If this value is less than 0.50 the final school is assigned to intervention, if otherwise, to control.

Participants

Schools identified in EEF databases, AQA and EdExcel examining board databases and through Eedi's own database of teachers are approached in order to gauge their interest in participating in the study. It was felt important to only admit schools to the trial where existing use of Eedi was either completely absent or minimal. However, Eedi is available to schools, teachers and pupils across England, making it difficult to find schools in which there is no existing use of the system.

Once a school has signalled their interest, Eedi (the developers and implementers) assess existing usage of Eedi at the school through examining their administrative data records. These records indicate which schools, teachers and pupils have existing accounts on Eedi and the extent of their current usage. Only schools with 30 or fewer active pupil accounts² were considered for inclusion in the trial. This threshold was devised by the developers based upon their knowledge of existing usage and how best to measure it and is considered to be low existing usage. All schools with more intensive usage according to this criterion are excluded from the trial.

Schools can only enter the trial if they agree that access to Eedi is disabled completely for the duration of study should they be allocated to control conditions. Eedi, as an online platform has the possibility to track and block usage to avoid contamination in the control group for those schools providing data through WONDE.

In each school, all pupils currently in Year 9 during the school year 2017/18, whose parents do not withdraw their child from the study are considered to be in range of intervention. Pupils in intervention schools will receive instruction in mathematics using Eedi for two school years – 2018/19 (Year 10) and 2019/20 (Year 11).

Sample size calculations

		OVERALL	FSM
MDES		0.168	0.170
Proportion of variance explained by covariates at:	level 1 (pupil)	0.50	0.50
	level 2 (class)	0.00	0.00
	level 3 (school)	0.25	0.25
Intraclass correlations (ICCs)			
	level 2 (class)	0.05	0.05
	level 3 (school)	0.20	0.20
Alpha		0.05	0.05
Power		0.8	0.8
One-sided or two-sided?		Two	Two
Average cluster size - class		24	8
Average cluster size - school		168	56
Number of schools	intervention	90	90

² Active user accounts are those that have completed quizzes between September 2017 and March 2018.

Number of pupils	control	90	90
	total	180	180
	intervention	15,120	5,040
	control	15,120	5,040
	total	30,240	10,080

Effect sizes for the primary outcome (attainment in mathematics at GCSE from the National Pupil Database) will be obtained from a three-level hierarchical regression model estimated on the final sample on an intention to treat basis. The model reflects the fact that the primary outcome is recorded at the pupil level and that pupils are nested within classes and classes within schools. The effect sizes will be adjusted through the inclusion of mathematics attainment at Key Stage 2 in the model as a pupil level covariate. The model will also include the variables used to stratify the randomization.

In consultation with developers and EEF, the decision was taken to power the trial to detect an effect size that is relatively modest (MDES=0.168), due to the low cost associated with the intervention, and therefore the low effect size that is likely to be of wider significance. Prior expectations concerning the likely effect size that is minimally relevant had to be considered alongside the costs of powering the trial to identify a relatively small effect size (these costs are mainly those associated with recruitment of schools, training of teachers and collection of primary data). As a result of such considerations an effect size of 0.168 (standardised mean difference) was chosen. The values used for intra-class correlation coefficients at levels 2 and 3 and proportions of variance explained at various levels through the inclusion of the level 1 covariate (KS2 fine grade score mathematics) were obtained from previous similar EEF-funded trials.

Analysis of the 2015/16 school census suggests that roughly a third of pupils in state secondary schools had received free school meals in the past 6 years. This equates to roughly eight pupils per class. Maintaining the same assumptions for the calculation of effect sizes under the primary analysis, reveals that a trial involving the random allocation of some 180 schools to intervention and control conditions is consistent with a minimum detectable effect size of 0.170 for the ever-free school meals subgroup analysis. The small differences between the effect size on the primary analysis and that for the ever-free school meals subgroup analysis is due to the number of schools randomized dominating statistical power in the case of cluster randomized trials.

Outcome Measures

The primary outcome for this study will be attainment in GCSE Mathematics at the end of Year 11³. With support from EEF, the study team will request release of NPD records from the Department for Education at the end of the trial for those pupils enumerated at the point of randomisation and whose parents had not withdrawn their child from the study by the time the request is made.

The secondary outcome measure will be a measure of teacher workload obtained from surveys of teachers responsible for delivering instruction in mathematics to the focal cohort of school pupils described above in both intervention and control schools. The survey will be administered online via email.

Surveys will be administered online to teachers in both intervention and control schools at four points in time. The first of these occasions will be prior to the commencement of the intervention in the summer term 2018. Post randomisation teacher surveys will be administered in December 2018, March 2019 and March 2020.

At each measurement occasion teachers will be asked to provide an estimate of the total amount of time they were engaged in for each of the following tasks during a specified reference week:

- Setting maths homework
- Marking maths homework
- Giving individual feedback to students in mathematics
- Giving group feedback to students

³ Specifically, the variable KS4_EBPTSMAT_PTQ_EE – Points score in maths Ebacc pillar - presently found in the data table KS4_01_02 in the 2016/17 NPD data release.

- Lesson planning in mathematics
- Writing student reports
- Chasing homework
- Communication and co-operation with parents or guardians

From this information, the total mathematics related workload will be calculated as the total amount of time spent across these five dimensions per teacher per week.

Analysis plan

The purpose of the primary analysis is to obtain an effect size estimate consistent with ‘Hedges g’ for the impact of Eedi on attainment in GCSE mathematics. The primary analysis will proceed on the basis of estimating the following equations:

$$Y_{itj} = \beta_0 + \beta_1 T_j + \beta_2 X_{itj} + \beta_3 S_j + \theta_j + \delta_{tj} + \varepsilon_{itj} \dots [1]$$

$$Y_{itj} = \beta_0 + \beta_1 T_j + \theta_j + \delta_{tj} + \varepsilon_{itj} \dots [2]$$

Where Y_{itj} is the GCSE points score for child ‘i’ in class ‘t’ within school ‘j’, ‘T’ an indicator of whether school ‘j’ is allocated to intervention or control conditions, X_{itj} in equation [1] the pupil’s score at KS2 mathematics defined as the fine grade score, and S_j the school level indicator for stratum membership (batch and region). Equation [1] represents the adjusted analysis, whilst equation [2] the unadjusted analysis. The terms θ_j , δ_{tj} and ε_{itj} represent random effects at the school, class and pupil levels respectively in both equations. We can write the intra class correlation coefficient at the school level where σ_j^2 , σ_t^2 , σ_e^2 are respective variances for these random effects. For the unadjusted analysis we have:

$$ICC_{unadj} = \frac{\sigma_j^2}{\sigma_j^2 + \sigma_t^2 + \sigma_e^2}$$

We obtained an estimate of Hedge g on the basis of the following equation [3]:

$$\Delta_{Hg} = \frac{\beta_1}{\sqrt{\sigma_j^2 + \sigma_t^2 + \sigma_e^2}} * 1 - \left(\frac{3}{4(n_c + n_t) - 3} \right) \dots \dots [3]$$

Where β_1 is the sample estimate of the adjusted treatment effect obtained through the estimation of equation [1] and the denominator of the first term in equation [3] is the pooled within group variance obtained from the unadjusted analysis from estimation of equation [2] – that is the unconditional variance. Consistent large sample estimates of variances and standard errors will be derived on the basis of the sample estimates in order to conduct statistical inference and construct confidence intervals.

A similar model as [1] will be estimated for the sample of pupils whose parents have ever claimed free schools meals on their behalf and those whose parents have never done so. Similar subgroup analyses will be performed by gender through estimating separate models for boys and girls.

The secondary analysis will explore the effect of Eedi on teacher workload. The dependent variable will be the total time per week spent in administering mathematics-related homework and preparation. A three level repeated measures hierarchical linear model will be estimated, on the basis that measures of teacher workload will be collected at baseline and at three subsequent time points, and due to the fact that workload measures are nested within the teacher and teachers nested within schools. The resulting estimate will be adjusted such that it is consistent with Hedges g and appropriate variances and standard errors derived.

Returning to the primary analysis, it is also proposed that the complier average causal effect is obtained on the basis of results from equation [1] along with the associated standard error. Given the impossibility of two-sided non-compliance arising from the fact that pupils and teachers in control schools will have no access to Eedi during the life time of the study, we focus on one-side non-compliance only, where the complier average causal effect is interpretable as the average effect of the intervention on the treated. The complier average causal effect will be computed as follows:

$$CACE = \frac{\beta_1}{Pr(compliance)}$$

Where β_1 is the adjusted effect obtained from equation [2] and ' $Pr(compliance)$ ' the proportion of pupils allocated to the intervention group that attempt at least one quiz. This is the minimal compliance measure.

Finally, a non-experimental analysis will be conducted to explore the association between the extent of usage of Eedi and performance in mathematics GCSE among the intervention sample. This will take the form of a three-level hierarchical regression model in which pupils are nested within classes and classes within schools and where GCSE points score forms the dependent variable Y_{itj} in the following equation, that is estimated on the intervention sample only:

$$Y_{itj} = \beta_0 + \beta_1 D_{itk} + \beta_{2m} X_{m,itj} + \beta_3 S_j + \theta_j + \delta_{tj} + \varepsilon_{itj} \dots \dots \dots, [T = 1]$$

Where D_{itk} is the proportion of available quizzes over the two-year period of the study attempted by child ' i ' in class ' t ' within school ' j ', $X_{m,itj}$ an ' m ' set of individual pupil level covariates measured at, or prior to randomization, including their KS2 mathematics fine grade score, sex, month of birth and ever-FSM, S_j an indicator of school stratum membership (batch and region), and where $\theta_j, \delta_{tj}, \varepsilon_{itj}$ are random effects at the school, class and pupil levels. In this model β_1 is interpretable as the association between intensity of use of Eedi at the child level and attainment in mathematics at GCSE.

Implementation and process evaluation methods

Process evaluation focuses on defining, monitoring and understanding the intervention and its implementation – what it looks like in practice and to what extent the intervention meets the programme developers' intentions, or otherwise. Understanding any variation in the intervention across the trial schools will help to determine how the programme translates across different contexts and how any variation might affect the expected primary or secondary outcomes.

The process evaluation will attempt to assess the following dimensions of implementation:

- **Fidelity/adherence** (the extent to which to programme is delivered as intended by the programme developers)
- **Dosage** (how much of the intervention has been delivered – for example, do teachers use all weekly quizzes, do they use the feedback mechanisms, etc.)
- **Quality** (how well different components are delivered – for example, what effect has the on-site training had in terms of quality assurance?)
- **Reach** (the rate and scope of participation – for example, are all classes using Eedi, are any students not using it, do these non-users have specific characteristics in common, etc?)
- **Responsiveness** (the degree to which participants engage with the intervention – for example, are parents engaging with the programme, are teachers using the full functionality of the programme, etc.?)
- **Programme differentiation** (the extent to which intervention activities can be distinguished from other, existing practice, for example are other diagnostic assessment tools and techniques already used)
- **Monitoring of control/comparison groups** (determining the 'counterfactual', undertaken largely through monitoring activity across the control group)
- **Adaptation** (the nature and extent of changes made to the intervention, what changes are made to the programme as it was intended to be delivered and why, and with what effect?)

Methodology

The process evaluation will adopt a mixed methods strategy involving the following:

- Online teacher surveys for all treatment and control schools
- Case studies in 12 intervention schools
- Analysis of data from the Eedi administrative data system

Online survey

There will be an online survey of maths teachers in all schools (intervention and control) at four points throughout the project. The table below presents the survey points, the intended purposes (e.g. the

implementation dimensions to be measured/monitored by the surveys) and any notes of differences between the treatment and control schools' surveys. In all cases, all KS4 maths teachers will be invited to complete the survey. Note that the timings of the surveys have been aligned where possible to occur at the same time of year each year in order to attempt to achieve as high a response rate as possible by avoiding especially busy periods in schools and to minimise any interference (particularly in terms of gauging perceptions of workload) from varying the time of year at which the survey is administered, for example, the exam period in May-June might elicit different responses in terms of perceived workload and might not represent 'typical' workloads. The exception is Survey 2 which is scheduled for December 2018 to facilitate the collection of data relating to the initial set-up and implementation of the programme.

Proposed online surveys to support the process evaluation

Survey point	Purpose (intervention schools)	Purpose (control schools)
Survey 1 (baseline): Summer term 2018	'Usual practice' survey to gather information on what schools currently do in terms of diagnostic assessment of Y10-11 maths. Check on whether Eedi or similar platform is used. Baseline measure of workload. Surveys will take place prior to randomisation	As for interventions schools – surveys will take place prior to randomisation
Survey 2: December 2018	Measure workload and workload perceptions. Checks on dosage and fidelity, and on reach and responsiveness. Quality measures – extent to which training met needs for initial set-up and first term of delivery.	Measure workload and workload perceptions. Checks on 'usual practice'/absence of treatment (e.g. examine whether they have started to use Eedi, or similar)
Survey 3: March 2019	Measure workload and workload perceptions. Checks on dosage and fidelity, and on reach and responsiveness. Exploration of adjustments made to programme delivery as intended. Gauging change – e.g. changes in practice, or to workloads, students' attitudes, performance, engagement, etc.	Measure workload and workload perceptions. Checks on 'usual practice'/absence of treatment (e.g. ensure they have not started to use Eedi, or similar)
Survey 4: March 2020	Measure workload/workload perceptions. Checks on dosage and fidelity, and on reach and responsiveness. Exploration of adjustments made to programme delivery as intended. Gauging change – e.g. changes in practice, or to workloads, students' attitudes, performance, engagement, etc. Collect information on costs of the programme.	Measure workload/workload perceptions. Checks on 'usual practice'/absence of treatment (e.g. ensure they have not started to use Eedi, or similar)

The surveys will be distributed to all teachers of maths in both the intervention and control schools via email. On initial recruitment email addresses will be collected for at least one main contact in the maths department at each school, we will therefore use that to distribute the survey and request that the survey link is forwarded to all maths teachers in the school who teach the cohort of interest to the trial (i.e. those starting year 10 in September 2018). To attempt to achieve a good response rate our researchers will undertake email and telephone follow-up with non-responding schools (or those with a low response rate within the school), offering support where needed, to encourage completion of the survey.

The survey data will be analysed by the evaluation team using an appropriate statistical software package for the quantitative data and where there are free text responses, NVivo software will be used to assist with organising, coding and summarising the qualitative data. The quantitative data will also contribute to the impact evaluation in terms of measuring the 'teacher workload' outcome (described above). The longitudinal nature of the study will allow us to examine change over time.

Case studies

Case study visits will be conducted during spring 2019. The visits will explore in greater depth the ways in which schools are engaging with the programme and perceptions of any impacts so far. They will also enable us to explore the consistency of delivery. The purpose of these visits is to support the implementation and process evaluation by gathering in-depth qualitative data from 12 schools. Selection of the 12 case study schools will take place during the second half of the autumn term 2018 in order to allow sufficient time to recruit schools and seek their agreement to participate in this element of the evaluation. The 12 schools will be selected so as to represent a variety of different contexts, perhaps based on school characteristics (e.g. high / low FSM eligibility, high / low attainment, etc.) but also based on what the schools have revealed so far (in the surveys) about the implementation of the programme at their school. For example, it might be useful to include schools that have adhered strictly and those that have made adjustments to implementation of the programme as intended. This will facilitate comparisons and explore more deeply the effects of on-treatment delivery as opposed to variations in delivery.

It is proposed that each case study visit lasts approximately half a day and during that time the researcher will conduct some or all of the following activities (exact activities that take place will be decided in consultation with the selected schools depending on which are feasible and appropriate in their school at the time of the visit).

- Interviews (individual or in small groups) with teachers delivering the programme, and SLT members responsible for overseeing the programme
- Focus group with a small number of students (ideally between eight and 12 students) receiving the intervention

The interviews with teachers will explore in greater depth their experiences and perceptions of using the programme. We will ask about their experiences of the training and initial set-up of the system, their ongoing use of the programme (e.g. are they using it as intended, what benefits have they seen so far, have there been any adjustments to the programme delivery and if so what and why, have they implemented any changes in practice due to the programme, has there been any notable impact on pupils' behaviour, attitudes or performance in maths, etc.). During the interview with the relevant SLT member, we will explore their views on the costs of implementing the programme, and seek to gain an overarching view of the programme as implemented at the school, for example, perceived barriers and enablers to programme delivery, adjustments/variability in the delivery of the programme (for example, different teachers using the programme in different ways), perceived impacts on teachers' workloads and pupils' attitudes, performance, behaviour, etc.

The focus groups with students will explore their perceptions of the programme and how they feel it might have changed their attitudes, behaviour and performance in maths, and whether they feel they have developed a better understanding of mathematical concepts. We will also explore how regularly students use the platform, whether they have also used the additional resources available to them (and if so, whether this proved beneficial or not), and if they have not made regular use of the programme and/or the additional resources why not. Students will be asked whether their parents have engaged with the programme, and if so how and whether this has been beneficial to the students themselves. If parents have not engaged we will explore the reasons why this is the case and whether students feel this has been detrimental to their own experiences of the programme.

The interviews and focus groups will, with the permission of all participants, be audio recorded and transcripts will be produced. These will be analysed using NVivo software to help to identify common themes, address the research questions, and explore the similarities and differences across the case study schools.

Analysis of data from the Eedi system

To supplement the online surveys and case studies, we will undertake some analysis of the data that supports the process evaluation that is gathered by the Eedi system. For example, data on usage will be used to monitor dosage, fidelity, and variability between and within schools. These data will facilitate the analysis of complier average causal effects. Changes to usage over the project period

will also be explored, for example, if a teacher who previously used the weekly quizzes at the suggested level discontinues or reduces their use, or if feedback mechanisms are no longer used, or are used to a lesser extent than previously. If available, we may be able to monitor parental engagement with the platform using these data. Note that these data and our analysis of them will also contribute to our decisions on which schools to include in the case studies as there might be usage patterns that we wish to explore more in-depth.

Process evaluation timeline

The following timeline is planned for the main activities that form the process evaluation:

Date	Activity
Summer term 2018	Baseline online survey (Survey 1)
May 2018	Interview with developers (cost information)
December 2018	Online survey (Survey 2)
December 2018	Initial analysis of data from Eedi system
February/March 2019	Case studies
March 2019	Online survey (Survey 3)
March 2020	Online survey (Survey 4)
May 2020	Interview with developers (cost information)
April/May 2020	Full analysis of data from Eedi system

Cost evaluation

In line with the EEF Guidance on Cost Evaluation⁴ information on the cost of implementing the programme will be collected. Our key methods of gathering this information will be the online survey that forms part of the process evaluation, and interviews with the programme developers at the beginning and end of the project. We will also discuss costs with SLT staff members during the case study interviews to achieve a more in-depth view of the costs of implementation.

The online survey will ask the relevant staff member (most likely the head of the maths department) to provide cost estimates for the following:

- **Direct, marginal costs** – e.g. fees for services such as CPD, ongoing support, etc.; costs of purchasing resources, materials or equipment, any travel/subsistence.
- **Pre-requisite costs** – e.g. for this intervention access to computers or tablets is necessary, however, this is usually for students to use at home (since the quizzes are set as homework). Schools will be asked to ensure that computers or tablets are made available to anyone without home access; therefore, an assessment will be made as to whether these have been purchased specifically to support this programme, or whether they already belong to the school, or were planned purchases prior to the school's involvement in the programme.
- **School staff time** – since one of the outcome measures in this study is teacher workload, information on staff time will be collected via the online surveys. However, towards the end of the trial period, we will gather more specific information from an SLT member or the head of department via their survey on additional time requirements (other than their own time). Examples of this include any time spent in addition to the normal school day (e.g. after-school homework clubs), time spend cascading training to colleagues unable to attend initial training or in need of 'top-up' training.

The data gathered will be analysed to produce a cost per pupil estimate, however, this will exclude school staff time costs which will be reported separately in units of time.

Ethics, registration and data protection

Both AlphaPlus and Manchester Metropolitan University have separate ethical clearance procedures that have been invoked independently in the case of this study. In the case of Manchester Metropolitan University, ethical clearance was obtained from the Faculty of Arts and Humanities Research Ethic and Governance Committee on 14th February 2018 (see letter at Annex A).

⁴https://educationendowmentfoundation.org.uk/public/files/Evaluation/Setting_up_an_Evaluation/EEF_guidance_to_evaluators_on_cost_evaluation_2016_revision_FINAL.pdf

The draft data sharing agreement between AlphaPlus, Manchester Metropolitan University, the Education Endowment Foundation and Eedi can be found at Annex B and includes information about the legal grounds for processing data. Manchester Metropolitan University's data protection statement is provided at Annex C.

Parents will be able to withdraw their child from the project at any time, including before the project commences by notifying the evaluators via their school or via an online link (notifying Eedi). The data on individual pupils are retrieved, stored and processed on the basis of school's agreement to participate in this study. This includes the legal basis upon which records from this study will be linked to the National Pupil Database for each child whose parents have not withdrawn their child from the study. A copy of the parental information sheet and withdrawal letter is provided at Annex D. A copy of the memorandum of understanding signed by schools, signaling their agreement to participate in the study is provided at Annex E. The wording of the withdrawal letter has been cleared by representatives of the Education Endowment Foundation to ensure it meets the requirements of the Department for Education for the linking of pupil record levels from the trial to the National Pupil Database.

In due course the study will be registered at www.controlled-trials.com and be allocated a ISRCTN

Personnel

AlphaPlus Personnel

- Andrew Boyle, AlphaPlus Director, will be Project Director
- John Hamer, AlphaPlus Director, will QA the research methodology
- Dr Roger Murphy will lead on Ethics
- Dr Kathy Seymour will lead on the Teacher Workload element, including design and development of research instruments
- Dr Hayley Limmer – Senior researcher at AlphaPlus – responsible for centre visits and working with AlphaPlus statisticians to carry out analysis of teacher workload element of project
- Clare Dowland – Project Manager

MMU personnel:

- Professor Stephen Morris, co-principal investigator, will oversee randomization, experimental analysis and reporting
- Mr. Andrew Smith, Research Associate, Department of Sociology, will conduct the randomization
- Dr Haridhan Goswami, Senior Lecturer, Manchester Metropolitan University ESRC/Nuffield QStep Centre – quality assurance of randomization
- Dr Zsolt Kiss, Research Associate, Department of Sociology will conduct all experimental statistical analyses as well as on treatment analysis and will also be responsible for reporting.

Risks

The key risks associated with this evaluation are shown in the table below. We will develop a risk register for the project which will be reviewed and updated on a regular basis.

As there are a number of partners involved, the table focuses on those risks where either AlphaPlus or MMU are the risk owners, but does include some risks owned by Eedi/BIT which AlphaPlus and MMU can provide mitigating actions through monitoring and/or documentation.

Risk	Likelihood of risk	Potential impact	Mitigating actions	Owner
Schools				
School recruitment Delay in recruiting sufficient schools for the project	Low/medium	High	AlphaPlus and MMU receive regular updates on progress on recruitment from Eedi and BIT and request additional actions if needed.	Eedi/ BIT
School involvement/continuity Schools do not use Eedi platform for agreed duration or with correct cohorts	Low/medium	High	Recruitment procedures and MoU with schools to clarify expectations and schools to agree	Eedi/ BIT
Data				
Compliance Data is not collected, processed and stored correctly	Medium	High	Develop clear procedures complying with GDPR on data collection and processing through a Data Sharing Agreement to be signed by all Parties. Full details of roles and responsibilities to be communicated to all team members.	Alpha Plus and MMU

			Data security policy to be followed by all team members Named point of contact for Data Issues	
Data collection Data is not collected in the correct form	Low	High	Liaise with Eedi to ensure all data required for the evaluation will be collected through the Eedi platform Perform tests during the early stage of the project to confirm data is as required	Alpha Plus and MMU
Delay in obtaining data from external sources NPD data is delayed/unobtainable	Low	High	We have experience in requesting and obtaining data from NPD and will request data at the earliest opportunity We are clear on the correct method and wording required to obtain data Appoint single point of contact from AlphaPlus/MMU team to liaise with DfE	MMU
Security issues Data security issues and ethical breaches of conduct	Low	High	A commitment to high standards of quality, ethics and information security, underpinned by compliance with relevant legislation (GDPR) Ethics approval obtained from MMU and from AlphaPlus ethics lead Named contact for any data / ethics issues.	Alpha Plus and MMU
Teacher workload research				
Teachers do not respond to surveys	Medium	High	MoU with schools to be clear on what is expected from the school and teachers Ensure survey points are reasonable Design research instruments to minimize burden on teachers, while meeting needs of evaluations AlphaPlus to have team member to liaise with teachers to maximise response rate	Alpha Plus
Teachers are not in post for duration of the research	Low	Medium	Work with Eedi and BIT to track any changes of maths teachers in participating schools Provide information for any new staff taking over maths classes in participating schools	Alpha Plus
Project staff				
Continuity of staffing over project duration Loss of key staff	Low	Medium	Both AlphaPlus and MMU have additional staff available to step in should team members be unavailable. Ensure documentation of all steps of the project in case activities need to be undertaken by other personnel	Alpha Plus and MMU

Timeline

The table below shows the dates for activities to be undertaken during the project.

ACTIVITY	PLAN	PLAN
	START DATE	FINISH DATE
Strand 0: Project Management	04/12/2017	31/03/2021
Second project set-up meeting	06/12/2017	06/12/2017
Monthly reporting	11/12/2017	31/03/2021
Contract signed	04/12/2017	16/03/2018
Project closedown		31/03/2021
Strand 1: Research design (protocol)	04/12/2017	05/02/2018
Theory-of-change workshop	06/12/2017	06/12/2017
Logic model developed and agreed	18/12/2017	08/01/2018
Confirm evaluation questions/ primary and secondary outcome measures	18/12/2017	08/01/2018
Confirm school and pupil data available from Eedi	02/01/2018	08/01/2018
Ethics approval - including parental consent process and letter (MMU and A+)	18/12/2017	15/01/2018
MOU signed off	15/01/2018	24/01/2018
Protocol completed and signed-off	02/01/2018	16/03/2018
Statistical analysis plan signed-off, including sampling and randomisation process	04/12/2017	30/05/2018
Strand 2: Pilot phase	15/01/2018	30/06/2018
Validate measure of 'teacher workload' with pilot schools	05/02/2018	31/05/2018
Finalise teacher workload tool	16/02/2018	31/05/2018
Strand 3: Baseline data collection and randomisation	05/02/2018	30/06/2018
MOU signed by schools	05/02/2018	30/05/2018
Consent letters sent to parents (allow 2-week for withdrawals to be advised)	05/02/2018	14/05/2018
Receive details of pupils withdrawn/ confirm no withdrawals	19/02/2018	31/05/2018
Receive baseline data from Eedi	19/02/2018	31/05/2018
Baseline measure of workload in a reference week prior to randomization and workload survey	19/03/2018	30/06/2018
Interview with developers (cost information)	01/05/2018	30/06/2018
Strand 4: Fieldwork and school monitoring		
Training for intervention schools –Eedi	01/06/2018	31/07/2018
Follow up workload survey 1	01/12/18	31/12/18
Follow up workload survey 2	01/03/19	30/04/19
Centre visits 12 x half to full day	01/02/19	30/03/19
Final workload survey 3	01/03/20	03/04/20

Interview with developers (cost information)		
Strand 5: Obtain and match quantitative data, analysis and reporting		
Obtain full, final data from Eedi system		01/07/20
Obtain NPD data		30/04/21
Analysis		
Analysis of baseline survey	01/05/18	30/05/18
Initial analysis of data from Eedi system	01/12/18	31/12/18
Analysis of follow up workload survey 1	01/01/19	30/01/19
Analysis of follow up workload survey 2	01/05/19	30/05/19
Analysis of centre visits	01/04/19	30/04/19
Analysis of follow up workload survey 3	01/04/19	30/04/19
Analysis of final workload survey 4	01/04/20	30/04/20
Full analysis of data from Eedi system	01/04/20	30/05/20
Incorporation of NPD data/GCSE results in to analysis	Summer 2021	Summer 2021
Reporting		
First draft of final report		31/10/21
Review, feedback revisions to drafts		31/12/21
Final report		31/01/22

Manchester Metropolitan
University



Faculty of Arts and
Humanities
Research and Knowledge
Exchange

Manchester Metropolitan
University, Room 123,
Geoffrey Manton Building,
Rosamund Street West,
Off Oxford Road,
Manchester, M13 6LL, UK

14 February 2018

Dear Prof. Morris,

+44 (0)161 247 6673

Application for Ethical Approval: Prof. Morris

**Project Title: Evaluation of the effectiveness of Diagnostic Questions
in raising attainment in mathematics**

Ethics Reference Number: A&H1718-40

I am pleased to inform you that the above Ethical Application has been
approved unconditionally.

I would be grateful if you could inform the other member(s) of the team.

Yours sincerely

Katherine Walthall
Research Group Officer

Tel: +44 (0)161 247 6673
Email: k.walthall@mmu.ac.uk

cc. Christian Klesse

Data Sharing Agreement for Education Endowment Fund (EEF) Eedi project –

1. Project

Evaluation of Behavioural Insight Team Eedi programme ('the Project')

2. Organisations involved

Eedi (whose registered address is Unit 4.2.2 The Leather Market, Weston Street, London, England, SE1 3ER)

Manchester Metropolitan University (MMU) (whose registered address is Manchester Metropolitan University, All Saints Campus, Oxford Road, Manchester M15 6BH)

AlphaPlus Consultancy Ltd (AlphaPlus) (whose registered address is Unit 109, Albert Mill, 50 Ellesmere Street, Castlefield, Manchester, M15 4JY)

3. Definitions

Agreement: means this Agreement

Effective Date: means the date on which all parties have signed this agreement

Parties: means the organisations listed in clause 2 above

Personal data: has the meaning given to it in the General Data Protection Regulation (EU 2016/670)

Processing: has the meaning given to it in the General Data Protection Regulation (EU 2016/670)

Privacy Laws: the Data Protection Act 1998 (the DPA) as amended from time to time, the Data Protection Directive (95/46/EC) as amended from time to time, the Electronic Communications Data Protection Directive (2002/58/EC) as amended from time to time, the Privacy and Electronic Communications (EC Directive) Regulations 2003 (SI 2426/2003) (as amended from time to time), from 25 May 2018 the General Data Protection Regulation (EU 2016/679) as amended from time to time and all applicable laws and regulations relating to the processing of personal data and privacy, including where applicable guidance and codes of practice issued by the Information Commissioner or any other national data protection authority, and the equivalent of any of the foregoing in any relevant jurisdiction.

Term of the Agreement: 1 March 2018 to 1 March 2021 [Note: we may need to extend depending on when final GCSE results are available.]

4. What is the purpose of the data sharing?

- 4.1 The data sharing is necessary for the parties to undertake a research project into the effectiveness of an online homework platform ('the Eedi Platform') aimed at pupils currently in Year 9 through to Year 11.
- 4.2 This project is in the public's interest as the results will help assess the performance of the Eedi Platform on student achievement and teacher workload.
- 4.3 The Eedi Platform is designed to deliver online mathematics homework assignments. The collection and sharing of pupil data participating in the research project is necessary in order for the parties to evaluate the effectiveness and impact of the Eedi Platform on pupils' attainment and achievement in mathematics. In addition, the collection and sharing of pupil data and surveys from teachers participating in the Project is necessary to assess the impact of the Eedi platform on teacher workload. The collection of data describing parents' usage of and engagement with the homework platform will also be used in the evaluation.

5. Roles of the Parties and Processing Conditions

- 5.1 The parties acknowledge that the factual circumstances will dictate their roles under the Data Protection legislation. Notwithstanding that fact, the parties agree that;
 - 5.1.1 The schools participating in the project will be the originating Data Controllers for any pupil data or teacher data they disclose to the parties under this project.
 - 5.1.2 The Department of Education is the originating Data Controller for any data disclosed to the parties from the National Pupil Database;
 - 5.1.3 Eedi are a Data Controller in respect of any personal data collected through the Eedi Platform
 - 5.1.4 Eedi will be Data Controllers in respect of any personal data of pupils/and or teachers which they collect or otherwise process for the purpose of this project; and
 - 5.1.5 MMU and Alpha Plus will be Data Controllers in Common in respect of any personal data of pupils/and or teachers which they process for the purposes of the project; and
 - 5.1.6 MMU will be a Data Controller to the extent it processes any personal data from the National Pupil Database for the purposes of the project.

5.1.7 MMU relies on the below processing condition under the GDPR in order to process personal data under this agreement;

- (i) The processing is necessary for the performance of a public task (namely the performance of the University's research functions) (article 6(1)(e).

5.1.8 The other parties rely on the below processing condition to process personal data under this agreement

- (i) The processing is necessary for purposes of legitimate interests (article 6(1)(f)).

6. Personal Data Processed

- a. Eedi have developed the Eedi platform. Eedi and BIT have received funding from the Education Endowment Fund ('EEF') to trial this platform in secondary schools. AlphaPlus have received funding from the EEF to evaluate the effectiveness of the Eedi Platform and have subcontracted part of this evaluation work to the University.
- b. Eedi will be responsible for recruiting schools to participate in the Project. Eedi will ask a member of the senior leadership team to confirm their school's participation in the Project by signing a Memorandum of Understanding (School Recruitment MoU) for the research project. Eedi will be responsible for approval for the terms of this MoU from the other parties and from EEF.
- c. The MoU will require the participating schools to circulate a Parental Letter to all parents of children participating in the Project. This letter will inform parents about the Project, the organisations involved and will allow them to withdraw their child from the Project. AlphaPlus are responsible for drafting the Parental Letter and for seeking approval for the terms of this letter from the other parties and EEF.
- d. Once Eedi have received the signed School Recruitment MoUs from the Schools, Eedi will provide MMU with the details of the participating schools. MMU will be responsible for dividing these schools into an intervention group and a control group. Eedi will only be implemented in those schools in the intervention group. The control group will not be given access to Eedi.
- e. Eedi will be responsible for obtaining from the intervention and control schools the below data about the schools, pupils participating in the Project and teachers at those schools:

Participating Pupil Data (data of pupils participating in the Project)

- (ii) Unique Pupil Number
- (iii) Pupil's full name;
- (iv) Date of birth;
- (v) Sex;
- (vi) Ever-FSM status; and
- (vii) maths set or class ID
- (viii) Classes in which each pupil currently receives maths instruction
- (ix) Whether the pupil started GCSE in Year 9

School Data (data of schools participating in the Project)

- (x) The URN for all participating schools
- (xi) Post code for the school
- (xii) Region (for the school)
- (xiii) LAD (local authority district)
- (xiv) Exam board (mathematics GCSE)

Teacher Data (data of mathematics teachers at the participating schools)

- (xv) Names and email addresses of the teachers
 - a. Eedi will be responsible for securely transferring the Participating Pupil Data and School Data to MMU. Separately, Eedi will be responsible for securely transferring the Teacher Data to Alpha Plus. secure transfer to be agreed by the parties involved. Eedi and BIT will ensure this data is transferred to MMU and AlphaPlus respectively by a date to be agreed in the Protocol between the Parties.
 - b. Eedi will then liaise with schools to implement the Eedi Platform to Participating Pupils. Eedi will make the Eedi Platform available to Participating Pupils in the intervention schools from September 2018 through to July 2020.
 - c. AlphaPlus will be responsible for contacting the Teachers in the Participating Schools to conduct a survey to assess their workload associated with mathematics and fidelity to the intended programme (in intervention schools), and absence of 'treatment' (in the control schools). Additional information will be collected about length of time in role, full time/part time status, mathematics specialist or not. The frequency and timings of these surveys will be agreed in a Protocol between the Parties. AlphaPlus will use this data to evaluate the effect of the intervention on teacher workloads.
 - d. AlphaPlus agree to share the Teacher survey results with the MMU via a secure method specified in the Schedule to this agreement.

- e. MMU agrees to request access from the Department for Education (DfE) to Key Stage 2 mathematics results and GCSE mathematics results of the Participating Pupils from the National Pupil Database ('the National Pupil Database Data').
- f. The University will use the Pupil Data, the National Pupil Database Data, the School Data and the Teacher Data to evaluate the impact of the intervention on pupil attainment at GCSE and on teacher workloads.
- g. MMU will share anonymised results of their research with EEF and BIT. EEF will publish the anonymised results in an evaluation report and the University and AlphaPlus write articles based on the anonymised results.

7. Data Protection Responsibilities

Data Protection Compliance

7.1 All parties agree to process any Personal Data processed under this Agreement in accordance with the Privacy Laws and not do anything to place another party in breach of its legal obligations, including the obligations under the Privacy Laws. For the signatories of this agreement, this will include: maintenance of a register of data and all parties will update their organisation's data register to include this project; production and monitoring of a risk assessment; development of and adherence to specific data processing procedures. In order to minimise any risk of data breach, data will be anonymised or pseudonymised at the earliest opportunity.

Fairness and Transparency

7.2 For the purposes of clause 7.3, the term 'transparency information' means the information listed below;

- What categories of personal data will be collected and analysed by the project
- How and why that personal data will be processed (including details of whether the data will be matched with other data sources)
- Identity[/ies] of the Data controller[/s]
- legal basis for processing
- retention period for the data
- subject's rights under GDPR
- details of parties who have access to the data and their roles
- consequences for the subject of failing to provide the data
- existence of any automated decision making or profiling

7.3 Eedi are responsible for ensuring that the transparency information is provided in:

- (i) The School Recruitment MoU provided to all participating schools; and
- (ii) The terms and conditions of the Eedi Platform which must be displayed to pupils before they register to use the Platform.

In addition Eedi agrees to ensure that the terms and conditions for the Eedi Platform notify pupils that their parents will be able to access their use of the Platform and results of exercises undertaken on the Platform.

7.4 AlphaPlus are responsible for ensuring that the Parental Letter provides parents at the Participating schools with sufficient detail about the Project to enable them to make an informed decision about whether they wish to withdraw their child from the Project. As a minimum this Letter must include the transparency information and explain to those parents how they may withdraw their child from participating in the Project.

7.5 Eedi are responsible for ensuring that parents are provided with a reasonable period in which they may withdraw their child out from the Project **before** the Project is commenced and for informing parents that they may withdraw their child at any point during the Project.

7.6 Eedi are responsible for maintaining a list of parents who have withdrawn their child from the Project (either before the project or at any point during the project) and for notifying the other parties promptly and within 1 week of a withdrawal, that a parent has withdrawn their child. All parties agree to delete any personal data held in relation to the child within 2 weeks of this notification.

Limitation of Purpose

7.7 All parties agree to only process the Personal data under this Agreement for the sole purpose of delivering the Project and agree not to use the Personal Data for any other purposes. The Parties agree to ensure that the processing of Personal Data is in accordance with the information provided to the Participating Schools in the MoU and the information provided to Parents in the Parental Letter.

Accuracy and Data Minimisation

7.8 Eedi, AlphaPlus and MMU agree to ensure the accuracy of any personal data they collect under the agreement.

7.9 All parties agree to only process the minimum amount of personal data necessary to achieve the Project's purposes as described in clause 3.

7.10 Eedi will inform MMU when any pupils in the intervention schools in the trial leave the school, there is a change in their maths set or class ID or their parent wishes to withdraw the pupil from the trial. Where Eedi are made aware of the same information, or changes to information, for pupils in the control schools they will also make MMU aware. MMU will ensure that pupil data is updated accordingly or removed from any data files.

7.11 Eedi will inform MMU when they are made or become aware that any teacher leaves a school or their class or contact details change. MMU will update their records accordingly. Eedi will also let AlphaPlus know if any teacher leaves a school and/or their email address changes. Eedi will also provide information about teachers who replace any who leave. AlphaPlus will update their records accordingly.

Data Security

7.12 All parties agree to implement and maintain the technological and organisational measures to protect the Personal Data processed under this agreement against accidental or unlawful loss, alteration, destruction, or unauthorised disclosure, dissemination or access, or alteration. In particular all parties agree that they will employ the Security measures as follows where processing the personal data:

Eedi - database is stored on Microsoft Azure (SQL database, Table Storage and Blob Storage) in West Europe. The data is encrypted at rest and transferred over SSL.

MMU will hold the data securely in line with its Information Classification Scheme as detailed on this link <https://www2.mmu.ac.uk/isds/information-security/policies/info-classification/>

AlphaPlus will adhere to its policy for secure data projects as specified in Annex A.

7.13 All parties agree to notify the specified points of contact below, within 24 hours, in event that any party knows or suspect that any Personal Data processed under this agreement has or potentially has been, lost, disclosed to an authorised third party, accidentally destroyed or altered:

- (i) Eedi point of contact – Simon Woodhead.
- (ii) Alpha Plus point of contact – Clare Dowland.
- (iii) The University point of contact – Steven Morris.

Confidentiality and Third Parties

7.14 All parties agree to take reasonable steps to ensure that their personnel who have access to any Personal Data are aware of the obligations under this Agreement in relation to that data and have undergone adequate training in the care, protection and use of personal data in compliance with the Privacy Laws.

7.15 All parties agree not to disclose or transfer the Personal Data to any third parties other than where;

- (i) disclosure to Participating Schools, the EEF or the DfE is necessary for the purposes of the Project; or
- (ii) disclosure is required by law.

Non-European Transfers

7.16 All parties agree not to transfer the personal data to any country outside of the European Union.

Individuals' Data Protection Rights

7.17 Eedi will chiefly be responsible for contact with schools and will be responsible for handling any requests from individuals to exercise their rights under the Privacy Laws including requests for access to personal data. All parties agree to provide Eedi with reasonable assistance to ensure that Eedi can respond to such requests in compliance with the Privacy Laws.

Data Retention and destruction

7.18 MMU and AlphaPlus will send all data to the EEF to archive within three months of the end of the project. On acknowledgement of receipt of the data by EEF, MMU and AlphaPlus will destroy (within 14 days) all personal data associated with this project, including data sets received from the Data Controllers: schools, EEDI and NPD. MMU and AlphaPlus will advise EEF and BIT on completion of the destruction process.

Subcontractors

7.19 If a party wish to engage subcontractors to undertake processing under this agreement, the party will notify and seek the approval of the other parties. All parties agree to enter into a contract with their subcontractors which meet the requirements of the Privacy Laws and which imposes equivalent data protection obligations on the subcontractors as imposed on the parties under this agreement.

8. Standard Terms

8.1 Parties shall review the effectiveness of this data sharing initiative every six months and upon the addition and removal of a party, having consideration to the aims and purposes set out in *Clause 3*. The parties shall continue, amend or terminate the Agreement depending on the outcome of this review.

8.2 Each party reserves its rights to inspect the other party's arrangements for the processing of Shared Personal Data and to terminate the Agreement where it considers that the other party is not processing the Shared Personal Data in accordance with this agreement.

8.3 In the event of a dispute or claim brought by a data subject or the Information Commissioner's Office (ICO) concerning the processing of Shared Personal Data against either or both parties, the parties will inform each other about any such disputes or claims, and will cooperate with a view to settling them amicably in a timely fashion.

8.4 The parties agree to respond to any generally available non-binding mediation procedure initiated by a Data Subject or by the ICO. If they do participate in the proceedings, the parties may elect to do so remotely (such as

by telephone or other electronic means). The parties also agree to consider participating in any other arbitration, mediation or other dispute resolution proceedings developed for data protection disputes.

8.5 Each party shall abide by a decision of a competent court of the Data Discloser's country of establishment or of the ICO which is final and against which no further appeal is possible.

8.6 This Agreement is drafted in the English language. If this Agreement is translated into any other language, the English language version shall prevail.

8.7 Any notice given under or in connection with this Agreement shall be in English. All other documents provided under or in connection with this Agreement shall be in English, or accompanied by a certified English translation.

8.8 .Where variation of this agreement is necessary to reflect changes to the project or the roles of the parties the parties agree to negotiate in good faith in order to agree reasonable variations. No variation of this agreement shall be effective unless it is in writing and signed by the parties (or their authorised representatives).

8.9 In case the applicable data protection and ancillary laws change in a way that the Agreement is no longer adequate for the purpose of governing lawful data sharing exercises, the Parties agree that the Specified Points of Contacts will negotiate in good faith to review the Agreement in light of the new legislation.

We commit to the terms of the data sharing agreement as detailed in this document.

MMU SIGNATURE [STEPHEN MORRIS]:

DATE:

EEDI SIGNATURE [SIMON WOODHEAD]:

DATE:

ALPHAPLUS CONSULTANCY LTD. SIGNATURE [ANDREW BOYLE]:

DATE:

AlphaPlus Data Security Policy

General

- 1) AlphaPlus will appoint a Data Manager for the project.
- 2) The Data Manager will setup a separate project on SharePoint and the secure file area within our server for secure files.
- 3) That person will be responsible for ensuring all the project team members understand their responsibilities and have signed up to the data security policy.
- 4) All Project team members as well as any internal and external consultants and sub-contractors (e.g. printers) working with confidential materials must sign a *Confidentiality Agreement* (in addition to this document) as part of their conditions of employment and be made aware of the confidential nature of any materials they may be working with at any given time.
- 5) Project team members must have access to policies which outline how to dispatch confidential materials and what to do if materials go missing (see **Appendices B and C**). *A typical confidentiality agreement is attached as **Appendix A***
- 6) That person will liaise directly with the client for the transfer of all data covered under the DPA. The client will be required to agree that our approach is satisfactory (e.g. by email)

Obtaining files from client and storage on AlphaPlus secure server

- 1) We will take instruction on this from the client, but either download files from their secure service or offer them a time-limited login to upload files to the AlphaPlus SharePoint or to the AlphaPlus secure file store system.
- 2) On receipt, the Data Manager will log the files and store them in the data warehouse for the project on the AlphaPlus secure server.
- 3) Clusters of files will be password protected using 7zip's or Winzip's AES256 encryption. Individual files may also be protected using the embedded protection in MS Office 2007, 2010 or 2013 (The password protection in MS Office 2003 and before is inadequate UNLESS the Microsoft 2007 compatibility pack has been installed: <http://www.microsoft.com/download/en/details.aspx?id=3>). In all cases, passwords will be of at least 12 characters and contain letters and numbers. Use of KeePass (keepass.info) to create and retain passwords is recommended. If so used, the location of files must not be stored within KeePass.
- 4) The Data Manager will decide which files are to be designated as secure. All files containing Personal Information and/or Sensitive Personal Information must be designated as secure. The client may wish additional files to be designated as secure.
- 5) Files stored on the secure server should be retained as required (according to procedures above) and deleted on completion

Exchanging secure files within the project

1. Users of secure files will use the secure file store and transfer procedures provided by AlphaPlus (see instructions in operations manual) according to the designated procedures. Secure Files will not be held in transfer areas for any longer than is necessary.

Project team working practices

- 1) All project team members must sign a copy of this document to say they have understood and agree to abide by the working procedures for the project.
- 2) Project team members will have access to all files on SharePoint but will be advised to only download those that they need to work on. Only those with specific need will be provided with access to the AlphaPlus Secure Server.

- 3) For standard working practice secure Files must only be stored and used in the office⁴ – not transferred out on laptops or memory sticks, etc. Where operational requirements require secure data to be transferred to a laptop or removable media (for example as part of an agreed data delivery) the laptop or removable media must be encrypted using the Microsoft Bitlocker application, in addition to the encryption of individual files.
- 4) Passwords for downloaded files will be obtained from the data manager by email or telephone. Where a password is sent by email, the email must include only nominal reference to the nature or location of the file.
- 5) Project team members must:
- a. Store downloaded and newly created files in a single folder structure (on a discrete drive if such is available) – Note this file-store should not be set to synchronise with removable media such as a laptop or with any backup services.
 - b. Keep a log of downloaded files and new files they create.
 - c. Ensure all files, including working files are password-protected when not worked on using either 7zip or Winzip's AES-256 encryption with a password of 12+ characters.
 - d. Any back-up created should be physically secure and be able to have audited deletion as in (6) below – if in doubt back-up should be via storage of working files on SharePoint, password protected as appropriate.
 - e. Not leave files open on the desktop out of working hours or while their computer is unattended for long periods. For clarity, this means that at the end of each day, or at a point where files are not going to be worked on for half a day or more, all files, including working files, should be zipped/password protected as per (c) above.
- 6) No secure files should be transmitted by email. Files should be uploaded to SharePoint or the AlphaPlus Secure Server for others to download. Passwords for these files may be sent by email or telephone but if sent by email, the email should not contain the URL for the resource (e.g. send the URL and password in 2 separate emails).
- 7) No secure files should ever be recorded to removable media (for example memory sticks or cards) OR ever transferred by post without the prior permission of the Data Manager. Any such transfer must be via media protected using Bitlocker encryption or comparable whole device encryption.
- 8) When the project is complete, and following a check by telephone or email with the Data Manager, all project files must be 3-pass shredded using an approved shredder (currently suggest FILE SHREDDER 2 http://download.cnet.com/File-Shredder/3000-2144_4-10662831.html?tag=mncol with the DOD5220-22m shred setting) and the project team member should advise the Data Manager by email that all files have been shredded.
- 9) Any problems or breaches with security of secure files should be reported to Director of Operations immediately.
- 10) Where feasible, documents should be marked as secure.
- 11) The creation of paper copies of secure information should be kept to a minimum. Storage must comply with the following requirements:
- a. Lockable equipment e.g. filing cabinets must be used to ensure all confidential materials are securely stored
 - b. Keys for lockable cupboards must be stored in a safe location
 - c. Confidential materials must not be left unattended on desks at any time.
 - d. Where materials are saved on to external media (eg CDs), these should also be stored securely e.g. in a safe or lockable cupboard

12) If any confidential materials need to be transported in any fashion, e.g. when attending a meeting, they must be transported as securely as possible and must never be left unattended e.g. they must not be placed on luggage racks on public transport, left for short periods of time or left in the boot of a car.

Annex C – Manchester Metropolitan University's Data Protection Statement

Manchester Metropolitan University's data protection policy can be found at this link:

<http://www2.mmu.ac.uk/data-protection/>

Annex D – Parental letter and Information Sheet

PERU Policy Evaluation
Research Unit



RESEARCH PROJECT INFORMATION SHEET

Dear Parent/Guardian,

[School Name] is taking part in a research project over the next two academic years (2018-19 and 2019-20). The school has agreed to the project, and the activities are being planned within normal class time and as part of children's scheduled maths homework tasks. Below, we describe why we are doing this research project, and what is involved for you and your child.

Please read the information carefully and keep this sheet for future reference. If you decide that you do **NOT** want your child to be involved in the research, then please follow the link at the end of this letter to withdraw your child from the project or alternatively, sign the attached form at the end and return to the school by **each school to insert a date, approx. 2 weeks from distributing this sheet**. If **you are happy for your child to be involved, you do not have to do anything**. You are free to withdraw your child from this project at any time by contacting us using the details at the end of this letter.

What is the purpose of the project?

The purpose of the research is to study the effectiveness of an online maths programme 'Eedi' on pupil achievement and teacher workload in a 'real-life' school setting. The programme is used to set weekly maths quizzes as homework. The quizzes will replace part of the existing maths homework for your child rather than being set in addition to it. The programme provides both pupils and their teachers with feedback on the answers they have given and helps them to address common misunderstandings in maths via both individual and group feedback. Parents also have the opportunity to receive feedback on their children's performance and activities via text messages and/or by logging in to the Eedi website.

We are conducting this study across 176 schools in England, as a Randomised Controlled Trial. This means half of the participating schools will be randomly chosen to use the Eedi programme with their pupils. These are the 'intervention' schools. The other half will not use the programme. These are the 'control' schools. The random allocation of schools is essential to the evaluation as it is the most rigorous way to evaluate the effects of the programme. **At this stage we do not know whether your child's school will be an intervention or a control school**, however, we will be collecting data on the pupils from all schools in the study, regardless of whether they are intervention or control schools, including KS2 and GCSE results as well as related background data such as free school meals eligibility.

Who is undertaking the research?

The research is undertaken by AlphaPlus, an independent educational consultancy, in partnership with the Policy Evaluation and Research Unit (PERU) at Manchester Metropolitan University (MMU). The project is funded by the Education Endowment Foundation (EEF). EEF is an independent charity that funds research to test various ways of raising attainment in English schools. The project is being delivered by Eedi in partnership with the Behavioural Insights Team (BIT). Eedi are an educational

technology company who have developed the Eedi programme that your child will use, and BIT are a research company.

What is involved if my child takes part?

If your child's school is selected as an intervention school then your child will be using Eedi in Year 10 and Year 11 and data about each pupil will be collected through the Eedi platform covering their usage of the platform and their performance in the quizzes. If the school is a control school, your child will not be using Eedi as part of this research. Regardless of whether the school is an intervention or control school, data on the current Year 9 pupils will be collected to assist with studying the impact of the programme. This information is vitally important so that the research team can link their study records to national data that stores the results of pupils' performance in maths and English examinations. These national data are known as the National Pupil Database.

We are asking for your permission to obtain information about your child from the school, including their name, sex, date of birth, Free School Meals status and Unique Pupil Number. We (AlphaPlus and Manchester Metropolitan University) will use the information provided to link with the National Pupil Database (which is held by the Department for Education) to collect your child's Key Stage 2 results and eventual mathematics GCSE grade in 2020. Further matching may be undertaken with NPD data for subsequent research. Information provided will be shared with a small group of researchers at BIT, with the Department for Education, Education Endowment Foundation (EEF - the funder of this project), EEF's data contractor FFT Education and in an anonymised form to the UK Data Archive for research purposes.

Once your child's information is included in the data set, the data will be anonymised and no one will be able to identify individual pupils. We will not use your child's name or the name of the school in any report arising from the research.

All personal data will be treated with strictest confidence by the evaluators in accordance with the requirement of the General Data Protection Regulation (GDPR) 2018.

What will happen to the results of the research project?

The results of this project will be reported by the Education Endowment Foundation. The report will be freely available on their website. The anonymised results may also be written up for publication in academic journals.

Who has approved this research?

The study has been approved by the AlphaPlus Ethics Advisor, the Manchester Metropolitan University Ethics Committee (for activities involving its researchers) and the Education Endowment Foundation.

Contact for Further Information

If you have any questions about how we will use your child's data or about the way this study is conducted, please contact AlphaPlus by email: eefevaluation@alphaplus.co.uk, or by phone: 0161 249 9249.

If you have any queries about the Eedi maths programme and your child's use of this, please contact Eedi by email: eeef@eedi.co.uk, or by phone: 020 3176 4875

Thank you very much for your time!

RESEARCH PROJECT WITHDRAWAL SLIP

Please only complete if you do NOT want your child's data to be used in this research project

Details of the research project are included in the attached information letter. **If you are happy for your child's data to contribute to this project, then you do not have to do anything.**

If you do **NOT** want your child's data to be used for this evaluation, then please withdraw your child from the project online or via the below slip:

Alternatively, you can withdraw your child via the below slip and return it to the reception area at your school by **<<enter date>>**.

To withdraw your child online go to www.bit.ly/eediform

I do NOT want my child's data to be used for the purposes of this evaluation.

Child's full name: _____

School: _____ Class/form _____

Parent/guardian
name: _____

Parent/guardian
signature: _____

Date: _____

Completed slips can be returned to the reception at your school.

Memorandum of Understanding (MOU)

Agreement to participate in EEF's Eedi project

This MOU sets out the roles and responsibilities of schools participating in, and the parties involved in delivering and evaluating, the Eedi project. Schools should read this MOU in full, direct any questions to Eedi and then sign and return it to Eedi as per the instructions at the end of this document. Further information about how this research complies with GDPR are provided in the accompanying information sheet.

The Eedi project is being delivered by Eedi in partnership with the Behavioural Insights Team (BIT). Eedi are an education technology company and BIT are a social purpose consultancy specialising in the application of behavioural science to policymaking. Together we refer to Eedi and BIT as the project 'developers'. The project is funded by the Education Endowment Foundation (EEF). EEF are an independent charity that fund research to test various way of raising attainment in English schools. The project is being evaluated by AlphaPlus, an independent education sector consultancy, in partnership with Manchester Metropolitan University (MMU). Together we refer to AlphaPlus and MMU as the 'evaluators'.

1. Aims of the project

The aim of this project is to evaluate the impact of the formative assessment programme 'Eedi' (previously known as Diagnostic Questions) on attainment in maths at GCSE (Key Stage 4) and teacher workload.

2. About Eedi

Eedi is an online formative assessment programme for maths, designed to help pupils correct their misunderstandings with minimal additional work for teachers. Eedi will provide on-site training for maths departments in how to use the programme. The core components of the programme are as follows:

- 1) **Schools** assign formative assessment 'quizzes' aligned to their exam board's Scheme of Work. Eedi instantly populates a calendar of multiple choice quizzes for the entire year. If they wish, teachers can manually adjust the ordering/scheduling of the quizzes. There are two quizzes per topic in the Scheme of Work.
- 2) **Pupils** complete quizzes each week according to the Scheme of Work set by their teacher. Each quiz comprises ten questions and each question has four multiple choice answers. Each incorrect answer is designed to diagnose a specific 'misunderstanding'. Quizzes are marked instantly by Eedi. Pupils are then prompted to review their answers with feedback targeting their specific misunderstanding. Pupils are also given targeted learning materials from Oxford University Press (OUP).
- 3) **Teachers** do not have to mark quizzes, Eedi marks them automatically. Teachers can review their class's scores on Eedi, identify common misunderstandings and if necessary, send additional feedback to all pupils making that mistake.
- 4) **Parents** can receive automated text messages about new quizzes, pupils not completing quizzes as required, or what topics are being covered in class. More detailed reports are available by logging in to the Eedi website.

3. The evaluation

As stated above, the EEF Eedi project evaluators are AlphaPlus consultancy in partnership with Manchester Metropolitan University (MMU).

3.1 Who is included

Up to 176 schools will participate in the evaluation. The evaluation is conducted as a Randomised Controlled Trial (RCT). This means half of the participating schools will be randomly chosen to receive the intervention (Eedi). These are the 'intervention' schools. The other half will not receive the intervention. These are the 'control' schools. The random allocation of schools is essential to the evaluation as it is the most rigorous way to evaluate the effects of the programme. It is therefore important that schools understand, and consent to the random allocation process which will be carried out by the evaluators.

The evaluation will take place over 2 years, including the 2018/19 and 2019/20 school years. Only pupils in Year 10 in 2018/19 and Year 11 in 2019/20 will be included in the project.

3.2 Data collection

The evaluators will require the following data.

- 1) Eedi will collect the following school information: URN for all schools that have signed an MoU; Post code for the school; Region (for the school); LAD (local authority district); Exam board (mathematics GCSE); Classes in which each pupil currently receives maths instruction (so that we know which pupils are currently learning together – we have to be able to locate each pupil within a class and each class within a school); and contact information for the maths teachers involved.
- 2) Eedi will collect data about each pupil through the Eedi platform covering their usage of the platform and their performance in the quizzes.
- 3) Eedi will collect the following pupil personal data from schools using WONDE: pupils' names, Whether the pupil started GCSE in Year 9, Free School Meal eligibility, date of birth, sex and Unique Pupil Number (UPN). This data will be made available to the evaluators (MMU), who will match it with the participating pupils' data in the National Pupil Database (NPD) obtained via the DfE. From the NPD, the evaluators will obtain the pupils' Key Stage 2 results and at the end of the study their GCSE maths scores. The evaluators will also require details of which maths form or class each pupil is in for Year 10 and Year 11.
- 4) Teachers will be requested to complete a short online survey on their workload and their current practice (to monitor delivery, changes in practice and perceptions of impact where appropriate) at four points in the project: in spring/summer 2018 and then again in December 2018, March 2019 and March 2020. The survey will take approximately 15 minutes to complete.
- 5) The evaluators will visit a small number of intervention schools to undertake interviews and focus groups with teachers and a small number of pupils as part of the case study research element of the evaluation. Appropriate arrangements for this would be made with the case study schools.

Each school that agrees to take part in the study will be assigned at random to either intervention or control conditions. Random assignment will be undertaken by MMU who will also be responsible for analysing the data collected from schools by Eedi using WONDE.

3.3 Data protection

All pupil and teacher personal data will be treated with strictest confidence by the evaluators in accordance with the requirements of the GDPR 2018. Pupil personal data, including pupils' names, Free School Meal eligibility, date of birth, sex and Unique Pupil Number (UPN) will be matched with the NPD as part of the evaluation. Further matching may be undertaken with NPD data for subsequent research. The evaluators will share

the matched data with the developers, the Department for Education, the EEF, EEF's data contractor FFT Education and in anonymised form, the UK Data Archive.

No school, teacher or pupil will be identified in any report arising from this evaluation. The information collected will be used for research purposes only and no information that can identify individuals will be used for any other purpose. Any personal data collected will be destroyed in accordance with the GDPR when it is no longer required. The project has received ethical approval from MMU and AlphaPlus' respective ethics committees. Each organisation's ethical approval will pertain only to activities carried out by that institution.

3.4 Communication with parents

All participating schools will distribute an information letter, provided by the evaluators, to the parents of all pupils participating in the study. The letter will notify parents of the research, the data that will be collected on their child, how the data will be processed and give them the opportunity to withdraw from the study if they wish. Schools will allow parents an initial two weeks to respond if they wish to withdraw their child and then provide the evaluators with names of pupils that have been withdrawn, so they can be omitted from data collection. Parents will be able to withdraw their child at any point during the project.

4. Responsibilities for schools, Eedi and evaluators

Responsibilities for schools, Eedi and the evaluators are set out below.

4.1 Responsibilities for control schools

- 1) Distribute letters to parents of 2018/19's Year 10 pupils and provide the evaluators with names of those who have been withdrawn from the evaluation by their parents.
- 2) Allow Eedi to link to the school database via WONDE.
- 3) Provide the evaluators with the data described in Section 3.2, should it not be available via Eedi and WONDE.
- 4) The school MIS administrator must ensure all details connected to the Y10 2018/2019 are correct, this includes students, parents, teachers, classes and groups.
- 5) Not use Eedi for the duration of the trial (Eedi will block access).
- 6) Ensure teachers complete the teacher survey, as required by the evaluators.

At the end of the project in July 2020, control group schools will receive £1000 in compensation for participating in the programme and adhering to their responsibilities.

4.2 Responsibilities for intervention schools

- 1) Distribute consent letters to parents of 2018/19's Year 10 pupils and provide the evaluators with names of those who have been withdrawn.
- 2) Allow Eedi to link to the school database via WONDE.
- 3) Organise the Scheme of Work on Eedi to match the school's scheme.
- 4) Arrange a time in the Summer Term of 2017/18 for Eedi to provide 2 hours of training to the maths department.
- 5) Appoint a Project Lead (and backup) from the school to liaise with Eedi and the evaluators as necessary.
- 6) The Project Lead (and backup) will receive an additional 30 minutes of training on troubleshooting minor problems. The Project Lead will also be expected to speak with their account manager at Eedi once every half term on a call lasting up to 30 minutes.
- 7) Arrange for pupils without the required facilities at home to either complete the quizzes on-site after school, or loan pupils electronic devices when quizzes are due. Project Leads will supervise this process.

- 8) Set an average of two quizzes per week for all Year 10 classes in 2018/19 and Year 11 classes in 2019/20, reducing homework accordingly. If this average falls below 1.25, Eedi will contact the Project Lead to discuss how usage can be increased.
- 9) Ensure teachers complete the teacher survey, as required by the evaluators.
- 10) Provide the evaluators with the data described in Section 3.2, should it not be available via Eedi and WONDE.
- 11) Should they participate in a case study, arrange access to teachers and pupils and accommodate a school visit from the evaluators in Spring 2019 (e.g. provide a room for interviews or focus groups to be conducted).
- 12) The school MIS administrator must ensure all details connected to the Y10 2018/2019 are correct, this includes students, parents, teachers, classes and groups.
- 13) Add Eedi to your school's homework policy.

4.3 Responsibilities for Eedi

- 1) Be the first point of contact for the delivery of the programme, via a designated account manager.
- 2) Help schools connect to WONDE, to enable data sharing.
- 3) Contact Project lead to assist them in setting up the school's Scheme of Work.
- 4) Provide the evaluators with the data they need for the evaluation.
- 5) Provide schools' maths departments with 2 hours of training on:
 - a) The context of this study and research on formative assessment
 - b) Monitoring quiz completion and class performance
 - c) Giving feedback and setting follow up questions
 - d) Parental alerts
 - e) Ensuring access for all pupils
 - f) How to use Eedi's online technical support.
- 6) Provide Project Leads with an extra 30 mins of training on:
 - a) Troubleshooting minor problems
 - b) Helping teachers access Eedi's online technical support
 - c) Ensuring access for all pupils
 - d) Liaising with their account manager at Eedi.
- 7) Provide access to their online technical support team, available 8am-8pm Monday to Friday.
- 8) Monitor each school's usage and reach out if they appear to need support. Designated account managers will first contact the school's Project Lead and their backup if the Lead is unavailable.
- 9) Check in with the school's project lead every half term in a call lasting up to 30 minutes.
- 10) Fund up to £1000 worth of text messages for each school related to the project each year.
- 11) Provide access to OUP materials for all participating pupils for the duration of the project.

4.4 Responsibilities for the evaluators

- 1) Answer any queries about the evaluation.
- 2) Collect withdrawal notifications from schools and ensure those children's data are not collected.
- 3) Randomly allocate schools to the control or intervention group and inform schools and the developers of their allocation.
- 4) Collect, manage, store and analyse the data required for the evaluation.
- 5) Administer teacher surveys.
- 6) Conduct case study visits in a small number of schools during Spring 2019.
- 7) Ensure all members of the evaluation team are appropriately trained and have full Disclosure and Barring Service (DBS) clearance.
- 8) Publish a report on the findings of the evaluation.

5. Timeline

2018

Jan – April	Eedi recruit schools
May – July	Eedi train intervention schools
Sep	Trial starts

2018-20

Every half term	School Project Lead talks with Eedi account manager
Spring 2018, Dec 2018, March 2019 March 2020	Teachers complete an online survey
Spring 2019	Evaluators conduct case studies with 12 schools
May – June 2020	Year 11 pupils sit GCSEs

We commit to the evaluation of Eedi as set out above.

Please sign two copies. Keep one and email the other to EEF@eedi.co.uk, or by post to:
Unit 4.2.2.
The Leathermarket
Weston St
London
SE1 3ER

School Name

Name of Head/Exec Principal/Manager

Signature Date

Name of Account Manager, Eedi

Signature Date