

A mixed methods evaluation of the National School Breakfast Programme

Evaluator: Behavioural Insights Team

Principal investigator: Pantelis Solomon

PROJECT TITLE	A mixed methods evaluation of the National School Breakfast Programme
DEVELOPER (INSTITUTION)	Magic Breakfast
EVALUATOR - INSTITUTION	Behavioural Insights Team
PRINCIPAL INVESTIGATOR	Pantelis Solomon
STUDY PLAN AUTHORS	Daniel Gibbons (Lead Author), Ingrid Broch-Due, Jon Ahlberg and Sarah Breathnach
STUDY DESIGN	Mixed-methods study based on case studies, supplemented by surveys, management information and interviews.
PUPIL AGE RANGE AND KEY STAGE	Primary and secondary school students of all ages
NUMBER OF SCHOOLS	Approximately 1750
NUMBER OF PUPILS	Based on recruited schools

Study plan version history

VERSION	DATE	REASON FOR REVISION
1.0 [original]	24/10/18	

This Study Plan

The overall aims of this project are to:

- Evaluate and describe the scale-up process for the Magic Breakfast programme into the National School Breakfast Programme,
- Provide regular feedback to the delivery partners to increase the effectiveness of the scale-up,
- Generate generalisable insights on scaling up within educational contexts.

As a result of these broad aims, in comparison to traditional impact or implementation and process evaluations, we have more research questions and will use a wider variety of research methods.

This has necessitated a less traditional structure for this study plan, which is set out as follows:

1. [Intervention](#) section which introduces the programme we are evaluating,
2. [Study Rationale, Background and Research Areas](#) which sets out the context and theory underlying this research as well as the associated research areas/questions,
3. [Research Design](#) which sets out the general strategy for the research,
4. [Research and Analysis Methods](#) which sets out at a high-level the methods we will use to implement the design and the analysis tools we will use as part of those methods,
5. [Project Timeline](#) which links the design and methods with the study rationale in a timeline of when and why we will complete different research activities,
6. [Ethics and Risks](#) which sets out the ethical dimensions of the project, attendant considerations as well as risks to the project alongside mitigating strategies,
7. [Consent Forms](#) which provides the consent forms for the qualitative work in the study,
8. [Data Protection](#) which sets out the data protection and security measures for the project,
9. [Personnel](#) which sets out the personnel who will work on the different aspects of the project,
10. [Evaluation Frame](#) which sets out which quantitative and qualitative measures we will use for each of the Research Areas,
11. [Cost Analysis Details](#) which sets out how we will collect and analyse the cost data collected in the project,
12. [Prior Evaluation Summary](#) which summarises the evaluation conducted on the pilot study that led to the scaling up of the Magic Breakfast programme.

Finally, some key abbreviations and jargon that we will use continuously throughout this document are:

1. FAMB: Family Action/Magic Breakfast - these are the two delivery partners who have formed a consortium to deliver the programme we are evaluating,
2. SPs: School Partners - the FAMB staff who are directing working with schools,
3. SCs: School Coordinators - the school staff who implement the programme (usually a teacher, though not necessarily),

4. NSBP: The [National School Breakfast Programme](#) - the programme being evaluated in this project.
5. Waves: The NSBP occurs in three recruitment waves, Waves A (recruited in 2017-18 summer term), B (recruited in 2018-19 Autumn term) and C (recruited in 2018-19 Spring term).
6. Phases: The phases of this research project as detailed in the [Project Timeline](#),
7. SC survey means the school cost survey designed by BIT,
8. MI means management information which is the data FAMB is already collecting as part of its operations (usually to report to the Department for Education),
9. OF means FAMB's own outcomes framework data collection.

Intervention

There are in essence two key aspects of the intervention being conjointly evaluated here as the "Magic Breakfast programme":

1. Support for schools with a high proportion of disadvantaged students to set up enhanced breakfast provision, and
2. The actual breakfast provision within schools themselves. While the flagship model is a breakfast club, [several alternative models](#) are part of the programme.

The vision for this programme is to kick-start or improve breakfast clubs in pre-identified disadvantaged schools supporting them to be self-sustaining with funding prioritised for schools in [Opportunity Areas](#) without breakfast provision. The model outlined by FAMB in their proposal to bid for the National School Breakfast Programme (NSBP) is outlined [here](#). The key features are that it:

- Relies on regional teams of School Partners (hereafter SPs) who will use the two charities' direct connections with schools as well as other formal and informal networks to recruit schools.
- Provides free basic food for the involved schools (bagels, cereals and porridge).
- Creates a system of structured series of visits from FAMB to assist with setting up the clubs.
- Finally, it provides one-off grants of £500 or £2000 to schools to improve breakfast provision (up to £2000 for the 10 percent of schools to overcome short term barriers to improving their provision based on identified issues).

Some schools will be offered a reduced version of this programme, which we will largely exclude from this evaluation.

This is being done in the context of scaling up the Magic Breakfast programme, after a [prior effectiveness study](#) and process evaluation found that it was successful in improving educational attainment among primary school students. In a subsequent section, there is a [detailed summary of this evaluation](#).

As a result of the positive evaluation findings, the Department for Education (DfE) have committed substantial funding to expand breakfast provision in approximately 1,750 new schools (including state-funded primary, secondary, special schools and Pupil Referral Units [PRUs]). Magic Breakfast entered a contractual relationship with Family Action (hereafter FAMB) and were contracted to deliver this programme.

Study rationale, key questions and background

Study rationale

In the education policy sphere, scaling up successful programmes is vital to ensure that their benefits reach the maximum number of students and communities. This is particularly pressing when they concern disadvantaged students and access to basic rights such as access to adequate nutritious foods.

BIT was appointed by the EEF as an independent evaluator to create research to help FAMB ensure that the intervention is scaled up in a financially sustainable and effective manner. Further, the project will also contribute to the knowledge base around how to scale and simultaneously improve the design of educational interventions in general.

BIT's role is twofold: as a **monitor** who will collect data and provide feedback on progress of scaling-up of the programme and as an **evaluator** who will provide forward-looking conclusions as well as lessons learned for future scaling-up of other interventions. We will use a mixed-methods approach -- with a strong qualitative focus triangulated with behavioural science, management information (MI) monitoring and predictive analytics.

In terms of feedback, from September 2018, in the months where there are at least 3 school weeks we will provide a short (approximately 3-5 pages) monthly feedback report summarising:

- key findings from the qualitative research that month,
- key findings from the MI and outcomes framework,
- in months with cost surveys key findings from the cost surveys,
- proposed solutions around key areas of interest - especially as highlighted from previous discussions on reducing stigma for secondary school students.

In practice this means we will provide reports in these months:

1. 2018: September, October, November, December
2. 2019: January, February, March, May, June, July, September, October, November, December (no reports in April or August)
3. 2020: January, February (no report in March 2020 because this is the last month of the programme).

These reports will rely on receipt of MI and outcomes framework data from FAMB on a timeline to be agreed at the second set-up meeting (at least one week in advance of the end of the month).

We will provide the reports at the start of each calendar month to both the EEF and FAMB.

Theoretical background: What is scaling up in this context?

Before we address how we will assess and monitor scaling, it is important to define how we interpret the concept. In this context, scaling is defined as increasing adoption and reach. By adoption we mean embedding the programme within an institution in a manner which allows for the intervention to adapt to changes in context and ongoing constraints. By reach we mean expanding the number of institutions that adopt the programme, increasing the number of people the programme will benefit. Based on this we would not judge a scale-up process successful if it only temporarily increased the reach of a programme.

To break down how a scale-up process should be understood, BIT drew upon guides from ExpandNet/World Health Organisation's guides¹² to design this evaluation. These guides have been used to develop scale-up strategies for health service innovations that have been tested in pilot studies and proven successful. In this framework, there are three main dimensions of scaling-up: the horizontal, vertical and functional dimensions.

First, the horizontal dimension -- expansion of the intervention, which is focussed on recruiting and supporting new institutional settings (schools) to be involved in the programme and adequate numbers of students within those settings.

Second, the vertical dimension -- ensuring that the intervention endures through embedding it in existing or new institutions and the necessary advocacy work to enable this to happen. On the support for schools aspect, this may involve creating new institutions to run the programme into the future (here either through continuing the consortium or forming some other sort of body to provide the programme). In terms of embedding it within schools, this involves ensuring adequate future sources of funding (e.g. from the Department of Education or foundations or from existing school budgets) and commitments by institutions (schools) to continue the programme.

Finally, the functional dimension -- balancing ensuring rolled-out intervention has high fidelity to the original intended intervention where appropriate and is adaptable where needed. In terms of adaptability, this means adding new intervention elements and taking into account the organisational, financial, wider environmental and human resources available. Fidelity in a scaling up process mean alterations may need to be made to accommodate new settings or increased numbers. However, the core of the treatment model is key to maintain, otherwise the programme's mechanism may fail to work.

The key point here is that scaling a programme up should not just occur by recruiting more settings or participants, but that this requires adaptations of the programme and embedding to be a continued success.

The NSBP involves all three components of scaling up as there will be an additional 1,770 schools (the *horizontal* dimension), the aim will be to embed it in schools and advocate for breakfast clubs (the *vertical* dimension) and to tailor the programme where necessary to enable the horizontal scale-up (the *functional* dimension). These dimensions each require coordination and a strategy for being put into place.

The scale-up process for putting these dimensions into practice we can view as having five elements:

1. The innovation/programme (providing free breakfast),
2. The user organisations (schools),
3. The environment/context -- both the school-specific environment (e.g. Ofsted rating and the local economy) and to an extent political/UK environment,
4. The resource team/organisation (FAMB),
5. The scale-up strategy (i.e. the formal approach to adoption, spread and sustainability).

¹http://www.who.int/immunization/hpv/deliver/nine_steps_for_developing_a_scalingup_strategy_who_2010.pdf

² <http://www.expandnet.net/tools.htm>

In summary, we view scaling up as consisting of expanding the adoption and reach of a previously successful activity, both through more recruitment, embedding the intervention into practice and adequate tailoring while keeping fidelity to the original idea. This occurs through a scale-up process involving five distinct elements.

Key Research Areas Summary

Based on our understanding of scaling up articulated above, we have devised four overarching research focus areas from which to approach this project. These areas are based both on initial meetings and workshops with EEF and FAMB, as well as the scale-up theoretical framework we set out in the previous section.

We have divided these into two related parts of the evaluation (RA here is “research area”):

- The process evaluation which is examining both the scale-up mechanism and strategy itself (RA1) and the implementation of breakfast provision in practice (RA2),
- The cost and outcomes evaluation which is examining both the costs and outcomes of the NSBP retrospectively (using administrative, Edubase, cost survey and qualitative data) (RA3) and the future sustainability of the programme (RA4).

These areas relate to the three dimensions of scale-up as follows:

Research area / Dimension	Horizontal	Vertical	Functional
Operation of scale-up mechanism and strategy	X	X	
Implementation of breakfast provision in practice			X
Costs and outcomes of the programme	X	X	
Future sustainability		X	X

We will now briefly detail each area of focus.

Area of focus 1: Monitoring the scale-up mechanism itself and providing feedback to FAMB while the scale-up progresses

This area focuses on FAMB’s scale-up strategy and how it is put into practice to ensure adequate numbers of schools are recruited and supported to implement free, universal and high-quality breakfast provision for disadvantaged students. We have framed this using a guiding question, which is: what methods are used to enable the scale-up in practice and is the scale-up process therefore effective and coordinated?

There are four sub-areas which are:

Sub-Area	Objective	How will this be assessed
Strategy and coordinating activities	To detail the general scale-up framework that FAMB is drawing upon and how this translates	This is a qualitative research objective that aims to check whether there is a comprehensive

	<p>into the proposed scale-up implementation.</p> <p>As a result, to detail the coordinating and stakeholder engagement/advocacy activities that need to happen for a successful scale-up.</p> <p>To monitor how these occur in practice e.g. how much advocacy does Magic Breakfasts do in practice of its own programme.</p>	<p>general strategy that covers the above points, to describe that strategy and to measure its progress and rollout in practice.</p>
School support in practice	<p>To assess how the schools perceive support from FAMB (especially the SPs who are the staff with the most direct contact with schools) and how confident the partners feel in supporting schools.</p>	<p>This is a qualitative research objective that will be examined in interviews with school staff and SPs.</p> <p>We will also measure progress against the Department for Education's targets such as school recruitment and support visits completed.</p>
Recruitment and contact	<p>The objective is to monitor the success of FAMB in recruiting schools and analyse any patterns in the schools that decline to set up breakfast clubs.</p>	<p>This is a quantitative research objective that will be assessed using FAMB's management information.</p>
Barriers and facilitators	<p>To assess the barriers to and facilitators of successful scale-up, focussing in particular on the challenges identified in the IFS/NCB evaluation (see Annex 2) and the additionally identified area of stigma for receiving school breakfasts.</p>	<p>This is a qualitative research objective that will be assessed using observations and interviews with students and staff, mainly in the case study schools.</p>

Area of focus 2: Monitoring the fidelity/adaptations of the intervention within recruited schools

This area focuses on (in contrast to whole school-level support in the previous section) examining how within schools, the breakfast provision is implemented and whether the features of a school's provision effectively enable it to be free, universal and high-quality. The guiding questions for this area are:

1. Is the intervention scaled up in a way that ensures fidelity to the provision of universal, free, healthy breakfast to disadvantaged pupils?
2. What are the barriers and enablers of effective adoption of the intervention?

There are three sub-areas which are:

Sub-Area	Objective	How will this be assessed
Fidelity to the universal, free and healthy model	To assess whether the programme is implemented in a way that provides free, nutritious and accessible breakfast for all pupils at schools, and where this is not the case, to identify possible implementation barriers at the schools.	This research objective will be assessed using quantitative data (from the cost survey and an outcomes framework collected by FAMB). The context in which this occurs will be examined through qualitative research (in terms of the implementation barriers).
Programme mutations and adaptations	To assess whether the scale-up changes the breakfast provision models used, eligibility criteria and charging policies of schools, and the reasons for any such changes.	This research objective will be primarily examined using qualitative research (especially staff interviews). We will attempt to assess whether the changes are appropriate adaptations or caused by the real/perceived limitations of the scale-up process itself (i.e. optimisation under constraints).
Challenges	To assess whether the issues identified in the evaluation of the 2014-15 Magic Breakfast programme have been addressed, including whether pupils are aware of, can access and don't experience stigma around breakfast clubs, and whether breakfast provision is not overly reliant on staff goodwill.	This research objective will be primarily examined using qualitative research (especially interviews of students and observations).

Area of focus 3: Retrospective assessment of the scale-up and its average costs

This area of focus will assess whether the programme is being provided at a reasonable cost, and whether enrolment and attendance were higher or lower at particular classes of schools. The guiding question is - was the scale-up implemented successfully and for reasonable costs?

The three sub-areas are:

Sub-Area	Objective	How will this be assessed
Grant money	To assess whether schools have spent their grants to improve their provision, noting that it is an unrestricted grant. We will assess this separately for the two levels of grant.	This research objective will be assessed through two waves of cost surveys, one near the midpoint of the programme and the other focussed on sustainability

		<p>after the end of the programme.</p> <p>We will triangulate this with qualitative data collected from observations in schools.</p>
Enrolment and attendance	To explore which factors predict pupils attendance at the breakfast clubs. We will analyse this both at the end, and when FAMB provide this data on a termly basis.	We will use administrative data collected by FAMB and the Edubase data collected by the DfE.
Programme costs	<p>To estimate the average costs and staff hours spent in the programme per pupil per year and compare this with the 2014-15 Magic Breakfast programme.</p> <p>We will separately estimate the scale-up costs and the intervention costs.</p>	This research objective will be also assessed through two waves of cost surveys.

Area of Focus 4: Assessment of future sustainability

This area of focus will be forward looking, and examine whether the breakfast provision improvements (if any) from the NSBP can be carried into the future in a financially sustainable way. The guiding question therefore is: *is the intervention sustainable beyond the current funding period?*

The three sub-areas are:

Sub-Area	Objective	How will this be assessed
School sustainability plans	To explore what plans schools have for future breakfast provision and assess how they perceive the sustainability of funding.	This research objective will be examined through qualitative work, notably a sample of the school sustainability plans and interviews with school staff.
Expected future costs	To estimate the expected costs for future breakfast provision for schools enrolled in the 2018-20 Magic	This research objective will be met through cost surveys and administrative data

	Breakfast programme and for new schools beyond the IDACI list.	collection.
Future barriers and facilitators	To identify potential barriers and facilitators of successful breakfast provision after the 2018-20 programme, including the prospects for further scale-up and possible funding constraints.	This research objective will be met through surveys and a synthesis of qualitative research findings.

Research Design

The primary aim of our research is to assess whether (and why) the NSBP is a successful scale-up along the horizontal, vertical and functional dimensions described previously. Alongside this, we will assess whether there are lessons to be learnt for future scale-ups in the education sector and provide feedback on a regular basis to FAMB to help the scale-up process.

We have, in choosing a research design, been mindful that in addressing these dimensions we should impose the minimum burden necessary on schools and potential research participants (FAMB staff, teachers, other school staff and students) including minimising the use of personal data, while aiming to incorporate a variety of diverse perspectives.

The core of our design is a longitudinal case study design, augmented by a general mixed-methods design³.

A longitudinal case study design⁴ chooses a small number of settings (here 12 schools) and follows them throughout the process to be studied. Longitudinal case studies will allow a detailed analysis of how the intervention is being experienced within a bounded system (the case school). As FAMB intend to take the schools on a relatively fixed 'journey' consisting of four planning and support visits, this will allow us to monitor how the same schools proceed along the sequence. This allows a careful analysis that accounts for the context of each particular school and allows for an in depth understanding of barriers and facilitators along each step of the scaling process.

They are particularly useful as Balbach notes to establish the links between a programme and its observed impacts. As there are many factors within a school context that are not formally recorded in data (e.g. culture) just examining overall data or a random set of interviews may not find sufficient detail to isolate the effects of the scale-up process itself.

The primary disadvantage of case studies is that they are necessarily in a very limited number of settings and even if we try and ensure some representation of different institutions we cannot capture the variation across all schools.

³ For more details see: <https://libguides.usc.edu/writingguide/researchdesigns>.

⁴ Balbach, E.D. (1999). Using Case Studies to do Program Evaluation. Published by the California Department of Health Services, available at: <http://case.edu/affil/healthpromotion/ProgramEvaluation.pdf>.

We will therefore augment the case studies with mixed-methods data gathered from other sources - including quantitative data on all involved schools and qualitative data from a selection of schools not involved in the case studies.

Mixed-methods designs draw upon both quantitative methods -- to assess specific, measurable outcomes, and qualitative methods -- to gain contextual and experiential insights in a level of detail that is difficult to achieve with quantitative data.

Triangulating quantitative and qualitative research has a long history in social sciences research, going back in the academic literature at least to a 1959 article by Campbell and Fiske⁵. We will aim for holistic or contextual triangulation⁶, where instead of just verifying of conclusions from one research method with evidence from a different method we aim to use the data collected from both methods to look for genuinely new insights or conclusions. As Jick notes, this requires that:

“the weaknesses in each single method will be compensated by the counter-balancing strengths of another.”

As we are collecting quantitative data on the entire sample, this will be somewhat true however as noted in the [Timeline](#) and [Evaluation Frame](#), not all research sub-areas have quantitative and qualitative data collected for them. Triangulation is also not without its dangers - it may encourage the analyst to ignore true trends coming only from one source of data. Hence, we will initially conduct our research methods separately before integrating the different sources of data.

Hence, triangulation will only be a partial fix and we will note the effects of the robustness of conclusions caused by only being able to collect data through one method where necessary.

We now provide a high-level description of the research and analysis methods in this project.

Research and Analysis Methods

Case studies

Case studies are both a research design (as they are a strategy for conducting research) and a research method (as they are a way of implementing a strategy).

In terms of the method, the 12 case studies will be balanced across:

- primary and secondary schools
- recruitment waves B and C
- coastal/rural/urban schools
- type of programme.

For our case studies, we will only sample the ‘traditional model’ (i.e. not just the light-touch support offered to schools who only needed limited assistance). We will sample the light-touch schools only in the additional qualitative work.

We will not sample those schools in the first strand who are participating in the related parental engagement project with FAMB. This evaluation, running concomitantly to the

⁵ Campbell, D.T. and Fiske, D. W. (1959) "Convergent and discriminant validation by the multitrait-multimethod matrix." *Psychological Bulletin*, 56: 81-105.

⁶ Jick, T. D. (1979). Mixing Qualitative and Quantitative Methods: Triangulation in Action. *Administrative Science Quarterly*, 24(4): 602-611.

FAMB scale-up evaluation, is aimed identifying new ways to engage parents and carers with the Magic Breakfast in primary school, and will present its findings in October 2018.

The case studies will consist of semi-structured interviews, observations and document review of their sustainability plans triangulated with quantitative management information (each of these is explained below).

We will refine the exact proportions in our sampling frame when we know firmer recruitment numbers from FAMB.

We aim to follow the same schools from the set-up of breakfast provision with the help of FAMB through to the development of their sustainability plan in order to understand the scale-up mechanisms, the fidelity to the intended model, the retrospective assessment and sustainability of the breakfast provision. If the school becomes unavailable we will aim to supplement with additional cases.

We will [triangulate \(see above\)](#) the qualitative information with the quantitative data gathered through management information and other administrative datasets where possible.

Semi-structured interviews

Semi-structured interviews are a technique in qualitative work that balance the need for asking specific questions with the fact that interviewees may have valuable insights that do not fit within rigid interview questions or a fixed ordering.

Semi-structured interviews will not exceed 20 minutes with children and 30 minutes with adults.

In the case study schools, we will follow the interview schedule set by the [Timeline](#), interviewing both: staff, students and School Coordinators. We will use these interviews to interrogate both the scale-up process and the fidelity of the breakfast provision within the schools within the specific school context. We will purposively sample where possible within case-study schools for students and staff along such characteristics as i) age, ii) gender, iii) ethnicity and iv) SES status.

We will also conduct 20-25 additional interviews with SPs, school staff (usually School Coordinators or head teachers) and FAMB staff, as follows:

- All FAMB regional managers (3),
- SPs not involved in case studies (depends on what schools are chosen for case studies),
- School staff (remainder, including those with non-traditional model).

A purposive sampling approach will also be used with these interviews, to ensure we recruit SPs and School Coordinator staff with a range of demographic and characteristic information, to capture a diverse range of experiences. Specifically we aim to interview 1) SP staff varying in i) age, ii) gender, iii) ethnicity and 2) School Coordinators varying in i) age, ii) gender, iii) ethnicity, and iv) school type (primary and secondary schools, recruitment waves B and C, coastal/rural/urban schools and type of provision (traditional model vs. extended reach vs. 'light-touch support').

Information gathered in these interviews (and observations) will be coded using thematic analysis. This is a qualitative method for identifying, analysing and describing themes that are present within collected data without theoretical bounds.⁷ This method allows for flexible and rich interpretation and will take the form of a robust thematic framework, as it will be important to understand how the same theme may be manifested in a different way.⁸ Two researchers will co-code several interviews blind to ensure for consistency of application.

Observations

Observations are useful in addition to interviews to see how provision actually works, and to contrast this with how interviewees say or think the programme works in interviews. We will conduct 6 observation visits of the recruitment events across 6 different schools, and 6 observation visits of the planning/launch events across a further 6 different schools. We will also conduct observation of breakfast provision in all cases study schools. We will collect qualitative information from the observations on the effect of the scale-up, intervention fidelity and grant spending through both structured observation (i.e. note-taking on defined areas) and unstructured observation.

These observations will be non-participatory (i.e. our researchers will not join the breakfast club), direct and undisguised (as otherwise would be unethical). Observable behaviours and insights from the recruitment and planning/launch event observations will be categorised in a similar way to interview responses to best represent the emergent themes in line with the research questions.

We will also conduct informal interviews with breakfast provision staff as we have not counted on them being able to sit down for an semi-structured interview outside of serving breakfast. We would therefore like to ask a few questions about what they think of the breakfast, what children come to have breakfast, and how the provision has changed, for example, during breakfast preparations before the children arrive (in contrast to the other interviews these will not be recorded, but notes will be taken).

Document review and workshop

We have already reviewed much of FAMB's documentation that is relevant to understanding their scale-up strategy and communication with schools. Related to this, we have already conducted a workshop with FAMB around our shared understanding of scale-up processes and the intended scale-up strategy.

We will continue to review appropriate documentation for three purposes:

1. To provide feedback to FAMB on the appropriateness of their data collection and other documents related to this evaluation.
2. To assist FAMB to improve schools' experiences related to breakfast provision.
3. To assist with the research areas of focus, where we need to understand what steps FAMB have taken to address a particular issue.

We will also review the sustainability plans that our case study schools write, which will be triangulated with semi-structured interviews.

⁷ Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied thematic analysis*. Sage.

⁸ Bazeley, P. (2013). *Qualitative data analysis: Practical strategies*. Sage.

Cost Analysis

This method is focussed on assessing the cost of the programme and its future sustainability. We are not conducting a cost-effectiveness analysis as this is not an impact evaluation.

We will follow the 2015 *EEF Guidance on Cost Evaluation*, collecting the direct, marginal costs of the intervention, i.e. costs that are directly attributable to the schools' participation in the intervention. Following the guidance, some of these costs will be collected and reported in financial units, while others will be in units of time.

- *Financial costs* include fees for services, purchases of food/drinks, materials and equipment, and salary costs (insofar as the intervention requires that schools purchase more staff time, either by hiring new staff or extending the hours of current staff). These costs will be reported in cost per pupil per school year.
- *Extra time* includes costs that are not "paid" using money, but with time and effort, e.g. staff time and volunteer time dedicated to delivering the intervention without financial implications. Extra time will be reported in hours per school year and in hours per pupil per school year.

To be able to compare costs with the 2014-15 Magic Breakfast programme, survey items are similar to those used in the 2016 evaluation, though with some changes in wording to improve reliability and validity and with a number of additional items capturing salary costs and more.

However, two main adjustments are made to improve the validity of the cost estimate and adhere to EEF guidelines:

- Additional cost components are included:
 - Salary costs⁹ and other ongoing costs for schools (school surveys)
 - Magic Breakfast support, purchasing transaction costs and other intervention-related costs (Magic Breakfast excel answer sheet)
 - Family Action project management and other costs (Family Action excel answer sheet)
- Costs are reported per pupil receiving breakfast instead of per pupil at the entire school.

These adjustments will be included in the cost analysis of the 2018-2020 programme, but will not be used in the comparison with the 2014-15 programme.

The costs of the Magic Breakfast programme will be incurred by schools (set-up costs and ongoing costs), Magic Breakfast (food/drinks purchases and support) and Family Action (project management). Since all programme-related costs, not just those incurred by schools, should be included in the cost analysis, we collect cost data from both schools and FAMB partners.

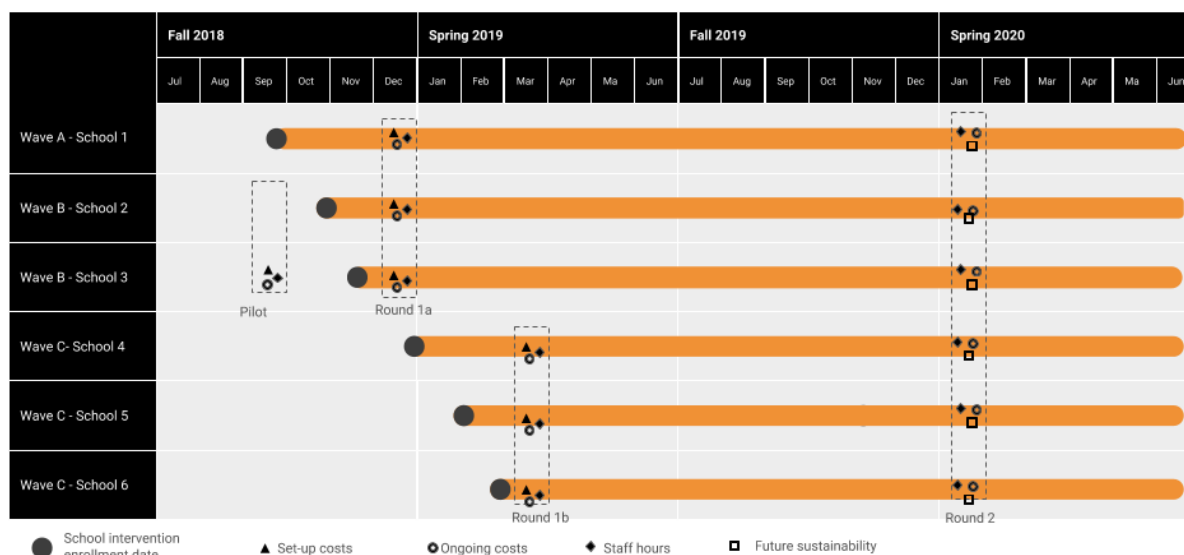
This will be done in web and paper surveys to School Coordinators, web survey and excel answer sheet to Magic Breakfast, and an excel answer sheet to Family Action.

⁹ Salary costs for schools are taken from respondents' estimated costs of paid extra working hours for relevant staff where this item is answered. Where only the number of paid extra working hours per staff category is indicated, we will calculate the salary costs based on average salaries per staff category in the DfE School Workforce statistics.

The school surveys will be conducted in three rounds:

- A small initial pilot to confirm wording and estimate response rates,
- An initial survey on the costs while the intervention is being put in place,
- Another set of cost information collected near the end of the programme, examining sustainability issues.

These rounds are split up as depicted in this illustrative timeline:



The specific costs collected will be as follows by round:

Survey round	Cost components	Other components
Pilot	<i>Same as Round 1a and 1b below</i>	<i>Same as Round 1a and 1b below</i>
Round 1a and 1b	<p>Set-up costs:</p> <ol style="list-style-type: none"> 1. Furniture, 2. Improvements of the physical environment 3. Catering facilities 4. Resources 5. Other equipment 6. Staff training and recruitment <p>Ongoing costs:</p> <ol style="list-style-type: none"> 1. Additional food/drinks purchases 2. Salary costs due to intervention 3. Other ongoing costs 	<p>Extra time (staff hours):</p> <ol style="list-style-type: none"> 1. Teachers 2. Teaching assistants 3. Catering staff 4. Caretaking and maintenance 5. Pastoral staff 6. Office staff 7. Volunteers 8. Other staff <p>Non-cost components:</p> <ol style="list-style-type: none"> 1. Background information 2. Breakfast provision, eligibility etc. (except SATs week items) 3. Charging policy 4. Grants and funding
Round 2	<p>Ongoing costs:</p> <ol style="list-style-type: none"> 1. Additional food/drinks purchases 	<p>Extra time (staff hours):</p> <ol style="list-style-type: none"> 1. Teachers 2. Teaching assistants

	<ol style="list-style-type: none"> 2. Salary costs due to intervention 3. Other ongoing costs 	<ol style="list-style-type: none"> 3. Catering staff 4. Caretaking and maintenance 5. Pastoral staff 6. Office staff 7. Volunteers 8. Other staff <p>Non-cost components:</p> <ol style="list-style-type: none"> 1. Background information 2. Breakfast provision, eligibility etc. (including SATs week items) 3. Charging policy 4. Grants and funding 5. Future sustainability
--	---	--

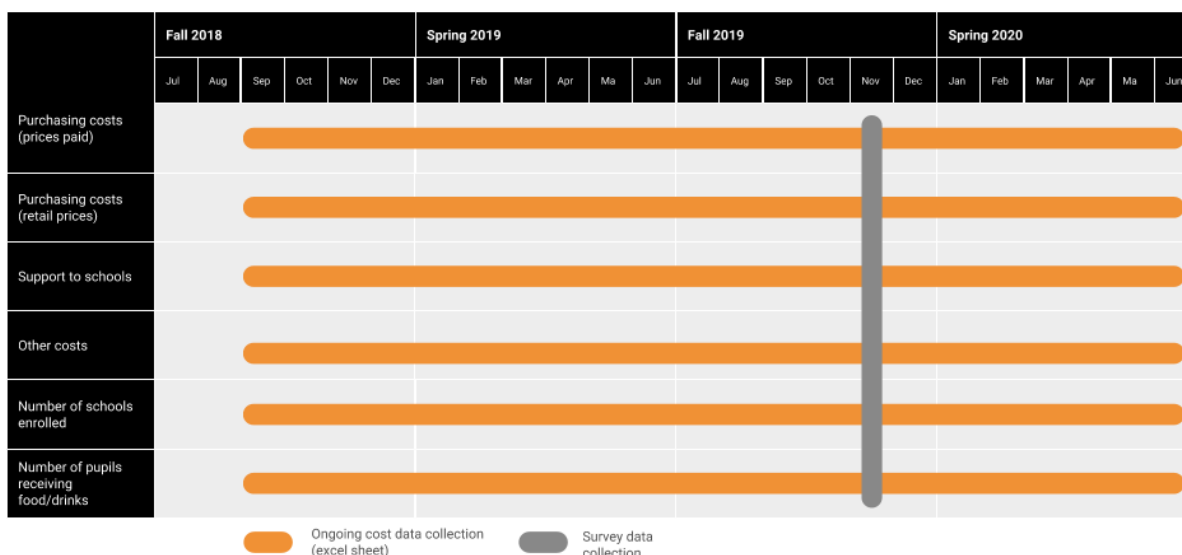
The following cost components will instead be collected from Magic Breakfast in an excel answer sheet on an ongoing basis, where Magic Breakfast can add and adjust cost categories, but where the following are suggested:

1. Food/drinks purchases (in retail prices):
 - a. Porridge
 - b. Bagels
 - c. Cereals
 - d. Other
 - e. Transaction costs
2. Support to schools:
 - a. Salary costs
 - b. Back office support
 - c. Other
3. Other intervention-related costs

In November 2019, we will collect from Magic Breakfast answers on the following non-cost components:

1. Drivers and barriers to success
2. Future membership fee and eligibility criteria
3. Future sustainability of school financing.

This timeline summarises this data collection:



Family Action

Throughout the duration of the programme, we will collect estimates of costs incurred by Family Action on project management that schools would otherwise have to incur themselves or pay for from third parties, e.g. in breakfast club membership fees. The following cost components will be collected from Family Action in an excel answer sheet:

1. Project management
 - a. Salary costs
 - b. Back office support
 - c. Other project management costs
2. Other costs

In addition to the guidance provided in the excel answer sheet, we will be in dialogue with Family Action about which costs they should include (only intervention-related costs, not evaluation-related costs). The Family Action excel answer sheet will be distributed per email in September 2018.

More details on the exact data collection for the cost analysis can be found in Annex 5. This collected data will be used to answer the research areas of focus, as described in Section 3 and Annex 5. However, broadly what we will do is:

- Produce an estimate for the average cost of the programme as is,
- Assess the sustainability of provision past the end of the programme,
- Assess the grant spending by schools.

More details on the method of data collection and what scenarios we will create costings for are explained in the [Cost Analysis Details](#) section.

Monitoring using quantitative data

We will use MI and outcomes framework data received each month to triangulate the findings from qualitative research. This will be based on seeing if FAMB have met the targets that we will agree at the second set-up meeting and reporting the percent that they are off by.

The indicators that we will use are described in [the Evaluation Frame](#).

It will be a narrative analysis - rather than using formal hypothesis testing we will examine the data for how they help us understand the overall picture of what is happening with the scale-up. To have a sense of the overall effectiveness of the programme we will report on the following descriptive statistics:

- Grants: grant distribution to schools by i) FSM band, ii) pupil premium funding, iii) prior breakfast provision model, iv) other relevant CFR categories¹⁰ AND grant use by schools' self-reported spending indicated in surveys.
- Attendance: Averages of attendance at breakfast provision for all schools AND pupil attendance for each school per term (including at the baseline),
- Access: Summary tables of charging policies of schools AND eligibility criteria for breakfast clubs.
- Fidelity: Averages across each of the domains in Magic Breakfast's Outcomes Framework for all schools.
- Reasons for non-participation (if stated, for eligible schools).

We will do this both at the end of the programme and on at least a termly basis.

We will use formal regression models to provide some formal testing of hypotheses of interest around:

- Which schools enrol in the programme,
- Which schools have high attendance at breakfast provision,
- Which breakfast provision model is the most successful.

We will analyse what factors determine whether eligible schools enrol in the programme using the following linear regression specification (which we will measure using heteroskedasticity-robust standard errors):

$$Y_i = \alpha + \beta_1 * FSM_i + \beta_2 * \log(SFP_i + 1) + \beta_3 * TYPE_i + \beta_4 * WHITEBRITISH_i + \beta_5 * REGION_i + \beta_6 * \log(STUDENTS_i) + \varepsilon_i$$

Where:

- Y_i is a binary outcome for whether the school i enrolls in the programme,
- FSM_i is the proportion of free school meals eligible students,
- SFP_i is the school's financial position (in revenue balance in £ at the end of the last financial year),
- $TYPE_i$ is the type of school (primary, secondary, PRU etc.),
- $REGION_i$ is the region of England,
- $WHITEBRITISH_i$ is the proportion of white British students at the school,
- $STUDENTS_i$ is the number of students,
- ε_i is the error term.

We have chosen to use a linear regression rather than a logistic regression due to its ease of interpretation. As linear regression with a binary outcome has the disadvantage that it can produce predicted probabilities out of the 0 to 1 range (and therefore incorrectly estimate coefficients), we will check the robustness of our conclusions using a logistic regression.

If the enrolment in the programme is below 90 percent of contacted schools, we would also conduct this predictive analysis using machine learning models called gradient boosted decision trees that identify the most important covariates in a regression model.

¹⁰ CRF administrative data are collected from the DfE school statistics.

We have used this threshold as it will not be interesting from a policy perspective to know why a small number of schools did not participate and because if so it is likely that the choice to not participate would be driven by really particular problems in schools.

We would use the entire Edubase data as potential covariates.

Gradient boosted decision trees work as follows:

1. An initial model is built to predict the outcome - here whether schools enrol in the programme. We then measure the mistakes that this predictive model makes on a separate sub-part of the data (to ensure we don't make an artificially complex model that perfectly fits the data).
2. Another model is then built to target the mistakes of the first, so that we deliberately improve the fit of the model.
3. This process is repeated (successive models targeting the previous model's mistakes) until no further improvements are found.

The advantage of using a machine learning approach is that it has the potential to remove some of the bias from researcher specification of a model.

We will also predict using the same linear regression specification above attendance at the breakfast provision, including the type of provision as an additional covariate.

This will allow us to describe which schools have high and low attendance both in at the breakfast provision. We will also conduct a gradient boosted decision trees analysis as described above. We will conduct these analyses on a termly basis (as that is when attendance is reported) and at the end of the programme.

The limitations of this analysis are that:

- We only have data on the school level rather than the individual level, so we cannot draw conclusions on whether attendance is low for particular kinds of students. For instance, if a school having many students of characteristic x is correlated with low attendance, that does not imply low attendance is correlated with characteristic x (only with a school having a higher number of characteristic x students).
- We cannot measure important characteristics of schools directly such as teacher motivation, which may confound our analysis.
- We only have data on an infrequent basis and the attendance numbers may be estimated by schools rather than correctly recorded every day.

Finally, while provision can involve a blend of different methods, we are particularly interested in whether schools have formal breakfast clubs or not. We will separately analyse:

- Having a formal breakfast club (which might include alternative provision) vs. having an alternative provision model only without a breakfast club.
- Formal club only vs. alternative provision only vs. both.

Our outcome measures will be:

- Attendance at school,
- Cost,
- Attendance at the breakfast provision.

Unfortunately, there are likely to be unobservable determinants of selection into the different modes of provision (for instance teacher motivation to run a breakfast club). The usual approach here would be then to find a

suitable instrumental variable that is associated¹¹ with selection into the provision model but not associated with the outcome. However, we do not have a valid instrumental variable here.

An alternative would be to model the selection into the model type, through a Heckman selection model. However, these models in the absence of valid instrumental variables are highly dependent on the specified parametric form and can be highly unstable to the choice of covariate sets.

Instead, we have opted to use coarsened exact matching (CEM)¹², as we believe that much of the choice of provision will be motivated by school budgets (as from qualitative indications from FAMB we know that squeezed budgets have been cited as reasons to have alternative provision). Matching reduces selection bias substantially when the main determinants of the choice of model are observable.

We have chosen CEM instead of more traditional approaches because in general it reduces model dependence and bias and improves efficiency over competitors.

This is likely to reduce but not eliminate the selection bias and as such represents our best estimate of the effect of the provision model (rather than say an unbiased estimate).

We will use the Freedman-Diaconis rule for binning the below variables, because it minimises the difference between the area under the empirical probability distribution and the area under the theoretical (real) probability distribution.

In particular, the following table presents the relevant variables for matching and our decision on whether or not to match on them:

Factor	Justification	Indicator	Issues	Influence decision?	Impact on outcomes?	Influenced by outcomes?	Use for matching?
Demographics of students or LA	Aims to feed disadvantaged students & affects decision on provision model (as changes ease of targeting).	FSM student percent coarsened into four bins		Y	Y	N	Y
	Predictor of future attendance and likely correlated with time-invariant covariates.	Prior school attendance		Y	Y	N	Y
School financial position	Qualitative sense is that it strongly influences selection of model and may	School financial position coarsened into four		Y	Y	N (very weakly)	Y

¹¹ 'Associated' here is in the statistical sense i.e. any relationship which renders them not statistically independent. 'Correlated' formally means only *linear* relationships and so we will not use it here.

¹² Iacus, S.M., King, G. and Porro, G. 2012. Causal Inference without Balance Checking: Coarsened Exact Matching. *Political Analysis*, 20(1): 1-24.

	affect outcomes.	bins					
Type of school	Secondary schools are likely to see lower attendance as students are less engaged and this may in turn affect choice of provision.	Primary, secondary or other		Y	Y	N	Y
	Proxy for a wide range of observable and non-observable economic differences	Rural, coastal or urban		Y	Y	N	Y
		Quality of provision of programme	Realised after choice of model	N	Y	N	N
School capacity to implement change	Influences practicality due to facilities limits etc. Also may influence attendance if larger schools are harder to control students in and may affect social norms.	Size of school coarsened into four bins		Y	Y	N	Y
	Proxy for teacher quality and motivation	OFSTED grade (coarsened into outstanding /good or RI/		Y	Weakly	N	Y
Ethos / Values of SLT	The decision could be values-led and this may affect other relevant school policies.	School policy documents Mission statement Soft Ofsted grades	Difficult to observe without cost and hard to directly measure	Y	N	N	N

Implementation of national policy directives	May give a sense of compliance	School role as Teaching School / Research School / Maths Hub / Lead in MAT	Difficult to observe without cost	Y	Y	Y	N
Research engagement	Schools who engage more with research might be more open to research-informed changes in practice.	Research School University sponsored academy Engagement with research networks	Difficult to observe without cost	Y	Y	Y	N
Local / regional influences	Affects grant £ eligibility and it will affect other sources of money and policies.	Opportunity area		Y	Y	N	Y

We note that we are matching all schools within a defined cohort, rather than individuals so we expect less variation (and therefore if we use many characteristics we are unlikely to produce matches). Unlike for many educational interventions, breakfast provision is usually provided to all students (though perhaps at different levels of cost). Hence, we have chosen a small amount of important variables that we believe are likely as explained above to affect either the choice of model.

Then we will regress (with the CEM-derived weights) the outcome measures (both pupil attendance at breakfast provision and general school attendance averaged across the programme) on either a binary variable of having the formal breakfast club or a three-way factor of formal club vs. alternative provision vs. both.

Timeline

Months	Research Activity	Sample	Areas of Focus
Phase 1 (Recruitment)			
August - September 2018	Set-up meeting 1 / 2 Scale up workshop Set-up meeting 2 / 2	FAMB, BIT, EEF FAMB, BIT FAMB, BIT, EEF	Set up meetings, document review and workshop: 1a - these helped us understand the way the scale-up works in theory.
September - November 2018	<u>Wave A and B schools - (Qual):</u> Case study 1 / 3 - Observation	<u>Wave A and B schools - (Qual):</u> 6-8 school visits	<u>Wave A and B schools - (Qual):</u> 1b (School support): In the interviews in the initial visit

	<p>of recruitment / planning launch visit</p> <ul style="list-style-type: none"> - Informal interviews during visit <p>Semi-structured phone interviews (not part of case studies).</p> <p><u>Wave A and B schools (Quant):</u></p> <p>Pilot cost survey (September)</p> <p>Outcomes Framework data/Edubase data</p> <p><u>All schools</u></p> <p>Other administrative data</p>	<p>3-5 SPs 3-5 School Coordinators</p> <p><u>Wave A and B schools (Quant):</u></p> <p>Approximately 15-20 schools</p> <p>All active schools</p> <p><u>All schools</u></p> <p>Some on all schools, some on a chosen 10 percent subset</p>	<p>stages, we will gather data from schools and SPs.</p> <p>1c (Barriers and facilitators): At this stage, we will gather preliminary data.</p> <p>2a (Fidelity): In schools with launched breakfast clubs, we may assess fidelity using observations.</p> <p><u>Wave A and B schools (Quant):</u></p> <p>3a-c (Costs): We will pilot the cost surveys with a small sub-sample of the schools (both wording and method of delivery).</p> <p>2a (Fidelity): The data collected by FAMB can be used on an ongoing basis to see how schools with different characteristics are performing in terms of intervention fidelity.</p> <p><u>All schools</u></p> <p>1c (Recruitment and contact): We will use administrative data to assess how FAMB is meeting their targets. We will model which schools signed up to the programme.</p> <p>3b: We will model which overall patterns in participation and attendance at school.</p>
Months	Research Activity	Sample	Areas of Focus
January-March 2019	<p><u>Wave C Schools</u></p> <p>Case study 1 / 3</p> <ul style="list-style-type: none"> - Observation of recruitment / planning 	<p><u>Wave C Schools</u></p> <p>4-6 school visits</p>	<p><u>Wave C Schools</u></p> <p>Relationship as above.</p>

	<p>launch visit</p> <ul style="list-style-type: none"> - Informal interviews during visit <p>Semi-structured phone interviews (not part of case studies)</p>	<p>2-4 SPs</p> <p>2-4 School Coordinators</p>	
February 2019	Interim Presentation with slides (not a formal report)	N/A	Focus on Research Areas 1, 2 and 3 (we will not have evidence on sustainability at this juncture).
Phase 2 (Maintenance)			
December 2018 - July 2019	<p><u>Wave A and B Schools</u></p> <p>Case study 2 / 3</p> <ul style="list-style-type: none"> - Observation of breakfast provision - Informal interviews with breakfast provision staff - 20 min semi-structured interviews with students - Semi-structured phone interviews <p>Round 1 Cost</p>	<p><u>Wave A and B Schools</u></p> <p>6-8 schools</p> <p>6-8 staff (1 per school)</p> <p>12 - 16 students (2 per school)</p> <p>6-8 interviews with SPs</p> <p>6-8 interviews with School Coordinators</p>	<p><u>Wave A and B Schools</u></p> <p>1b/1c: We will assess using the observations and staff interviews how the case study schools still feel supported when operating their breakfast provision.</p> <p>We will also use all the interviews and observations to establish the barriers to and facilitators of good breakfast provision.</p> <p>2a/b/c: We will use the observations and interviews to examine what the breakfast provision looks like (by both using a checklist and unstructured observations), how scale-up processes may have affected it and whether the identified challenges are being addressed well in practice (especially when talking to students).</p> <p>3a/3c: The survey will</p>

	survey (December 2018)	All schools	establish both whether the grant money is being used well as well as allow an assessment of the efficiency of the programme (and whether that has been affected by the scale-up).
	Quantitative Data Analysis	All schools	Same as for Phase 1.
Months	Research Activity	Sample	Areas of Focus
March - October 2019	<p><u>Wave C Schools</u> Case study 2 / 3</p> <ul style="list-style-type: none"> - Observation of breakfast provision - Informal interviews with breakfast provision staff - 20 min semi-structured interviews with students - Semi-structured phone interviews <p>Round 1 cost survey (March 2019)</p> <p>Quantitative Data Analysis</p>	<p><u>Wave C Schools</u></p> <p>4-6 schools</p> <p>4-6 staff (1 per school)</p> <p>8 - 12 students (2 per school)</p> <p>4-6 interviews with SPs</p> <p>4-6 interviews with School Coordinators</p> <p>All schools</p> <p>All schools</p>	<p><u>Wave C Schools</u> As above.</p>

Months	Research Activity	Sample	Areas of Focus
Phase 3 (Sustainability)			
August - November 2019	<p><u>Wave A and B Schools</u></p> <p>Case study 3 / 3</p> <ul style="list-style-type: none"> - Semi-structured interviews (retrospective assessment and sustainability) - Sustainability plan review <p>Semi-structured interviews (retrospective assessment and sustainability - not part of case studies)</p> <p>School conference observation</p>	<p><u>Wave A and B Schools</u></p> <p>6-8 School Coordinators/Head Teachers</p> <p>6-8 plans</p> <p>3-5 SPs 3-5 School Coordinators or Head Teachers 2 FAMB Regional Managers</p> <p>1-2 events</p>	<p><u>Wave A and B Schools</u></p> <p>1/2: We will synthesise the data gathered on these two areas with parts of the new observations and interviews to take an overall view.</p> <p>4a: We will gather data on the adequacy of school planning for the end of the programme.</p> <p>4c: We will also gather data on barriers and facilitators after the end of the programme.</p> <p>As above.</p> <p>4a: There will be an overall school conference on sustainability, which we will observe and conduct informal interviews at.</p>
Months	Research Activity	Sample	Areas of Focus
November 2019 - February 2020	<p><u>Wave C Schools</u></p> <p>Case study 3 / 3</p> <ul style="list-style-type: none"> - Semi-structured interviews (retrospective assessment and 	<p><u>Wave C Schools</u></p> <p>4-6 School Coordinators/Head Teachers</p>	<p><u>Wave C Schools</u></p> <p>As above.</p>

	<p>sustainability)</p> <p>- Sustainability plan review</p> <p>Semi-structured interviews (retrospective assessment and sustainability - not part of case studies)</p> <p>School conference observation</p> <p><u>All schools</u></p> <p>Outcome Framework/Management Information</p> <p>Descriptive models</p> <p>Cost survey - Round 2</p>	<p>4-6 plans</p> <p>2-4 SPs 2-4 School Coordinators or Head Teachers 1 FAMB regional manager</p> <p>1 event</p> <p><u>All schools</u></p> <p>All schools</p>	<p><u>All schools</u></p> <p>2a/1a: We will conduct overall analysis of the patterns in measured fidelity and overall performance using the MI data.</p> <p>3b: We will model which overall patterns in participation, attendance at school and which schools signed up to the programme.</p> <p>3a, 3c, 4b, 4c: The second round of cost surveying will focus on the future sustainability of the provision past the end of the NSBP.</p>
Months	Research Activity	Sample	Areas of Focus
Phase 4 (Reporting)			
March-May 2020	Analysis complete Report Due		

Ethics and Risks

We would classify this research as medium risk as this is:

X	is research involving children or other vulnerable groups which involves direct contact with participants.
X	study is on a subject that a reasonable person would agree addresses issues of legitimate interest, where there is a possibility that the topic may result in distress or upset in <u>rare</u> instances.
	is research which involves substantial direct contact with adults in non-professional roles (eg parents).
	is research which focuses on data collection from professionals responding to questions <u>outside</u> of their professional concerns.
X	is research with practitioners involving topics of a sensitive nature which are not personal to these participants.
	involves visits to sites where a specific risk to participants has been identified, and the researcher may not be closely supervised throughout

The key risks around this project are:

Risk/Issue	Detail	Mitigation
Unintended disclosure	Child discloses something during an interview which you believe may cause harm to themselves or others	Follow the school child protection policy. Do not say you can keep a secret. The interview guide will be carefully written to reduce the likelihood that a participant will disclose sensitive information. Researcher will adhere to the interview guide closely.
Causing distress/upset	Participant becomes upset when talking about their experience of the breakfast club because of its potential links with poverty and childhood hunger.	Ask the participant if they want to stop the interview; ask if there is another adult they have told. Students are safeguarded by a member of school staff, who will be present at all times during the research.

Stigmatisation	If a participant discloses that they for example are not being adequately fed at home this could lead to stigmatisation if revealed.	<p>Researchers will conduct all interviews in a private place where participants cannot be overheard.</p> <p>Researchers will uphold the guarantee of anonymity and confidentiality outlined in the information sheet.</p>
Inability to provide Informed consent	<p>Younger children and/or those with special educational needs and/or who speak English as an additional language may not be competent to provide informed consent.</p> <p>Parents of children for whom English is not their first language may also encounter comprehension issues.</p>	<p>Prior to interviews, we will ensure that students have comprehended the information provided by asking them to explain back what they have consented to.</p> <p>We may also restrict interviews to students above a certain verbal comprehension level. We will seek advice from the school on this.</p>
Schools are identifiable through case study information	There is a risk that schools will be identified through case study information.	Care will be taken to ensure schools are suitably anonymised so they cannot be identified.

Research Sensitivity

The overall objective of this work is to track the trajectory of scaling an intervention of this nature and to identify opportunities for improvements using observations and interviews. Given that the main focus of this evaluation will be on implementation, we do not consider the interview topics to be particularly sensitive. Students, will however, be asked about their *personal experience* of attending the breakfast club which could potentially lead to more sensitive discussions e.g. among students from more disadvantaged families, parents may not have sufficient income to adequately feed their children. This research, therefore, may prompt unintended disclosures on issues such as poverty, hunger and possibly neglect which have the potential to create upset or discomfort amongst participants. We are also working with a vulnerable and potentially marginalised group of young people.

Participant Vulnerability

As part of this evaluation, observations and interviews will be conducted with both those involved in the provision of the programme (i.e. teachers and volunteers) and those in receipt of it (i.e. students). Only student participants are considered as socially vulnerable. Students will be safeguarded by a member of school staff, who will be present at all times during the research and who know the students better allowing them to step in if they feel students are in discomfort or distress.

All participants will be reminded before and during interviews that they do not have to answer questions they don't want to, and that they can stop the interview at any time without

giving a reason. Participants will also be given an option to later withdraw their data if they would like. Researchers will look out for signs of distress and discomfort and will adjust the conversation to minimise discomfort. We outline below further actions we will take to ensure the participants are supported before, during and after taking part in the research.

Research Staff

All field researchers are enhanced DBS cleared. The lead researcher on this project (Jessica Heal) and field researcher (Ingrid Broch-Due) are mental health first aid trained. Qualitative researcher (Lauren Crouch) is a qualified mental health therapist trained in safeguarding adults and children and assessing risk. All researchers, including the final member of the qualitative team (Sarah Breathnach), are trained in interview techniques and have experience working with vulnerable people, and on research relating to sensitive topics. Field researchers will also receive internal training prior to the fieldwork in spotting signs of distress, signposting to support services, safeguarding and in techniques to conduct interviews on sensitive topics and with vulnerable groups. Given that some participants will be under the age of 16, these skills are especially important in addressing the inherent power imbalance between the interviewer and interviewees. These skills will help the researcher to support the interviewee to feel comfortable to share their experiences and perspectives.

DBS Links here: [Jessica Heal](#); [Ingrid Broch-Due](#); [Lauren Crouch](#); [Sarah Breathnach](#).

Safeguarding

Should any safeguarding incidents arise the procedure advised in the [CYP emergency crib sheet](#) will be followed. Any safeguarding incidents will be recorded with a brief summary of the issue and the action taken. These incident forms will be immediately passed to the school's safeguarding lead. The school principal will also be alerted should any issues arise. In line with BIT's [Child Safeguarding Policy](#), the school's safeguarding policy will be adhered to. Researchers will also be familiar with the NSPCC's guidance for professionals who work with children on how to recognise the signs of child abuse which can be found [here](#).

Informed Consent

We will seek informed consent from all individuals who participate in the study. One week prior to participation, opt in consent will be sought via [information/consent forms](#) distributed by school staff. For students under the age of 16, [parental consent forms](#) will also be sought. For adults, we will also see their [consent](#) to be interviewed. Verbal assent will be obtained prior to every interview.

The information sheet clearly outlines that participation is voluntary. At the start of every interview, participants will be reminded of this, and it will be made clear to them that there will be no repercussions for non-participation. They will be informed of their right to withdraw from the study at any time without giving a reason. The researcher will ask again during the interview, if they feel the interviewee is upset or uncomfortable. They will also be reminded they do not need to answer any questions if they do not wish to.

Confidentiality

Participants will be guaranteed anonymity in the research materials and they will be informed about confidentiality and the limits of confidentiality. These limits are:

- Participant discloses an immediate intention to harm themselves
- Participant discloses an intention to harm others
- Participant experiences severe mental health crisis
- Participant experiences a serious health crisis
- Participant loses capacity

If there is immediate risk to life, we would call the relevant emergency services.

Signposting

Signposting will not be used if a child self-discloses. In incidences where the researcher is sufficiently concerned about a child (this will be at the discretion of trained researchers), the disclosure will be treated as a safeguarding incident and the procedure outlined above will be followed.

In instances where an adult interviewee makes a disclosure we will sign post support. We will sign post participants to appropriate support if:

- Participant discloses physical, sexual, psychological, discriminatory, financial or material abuse.
- Participant discloses domestic violence, modern slavery, radicalisation
- There is a significant concern of self neglect and/or acts omission
 - Appropriate support will consist of sign posting to general physical or mental health support.

Please refer to the [BIT Adult Safeguarding Policy; Safeguarding checklist, Lone Worker Policy and Emergency Ethics Crib Sheet for Field](#) researcher in addition.

Burden on participants

The interviews for students will take place on school premises, and other interviews will take place by phone at an agreed suitable time. The interviews will last no longer than 30 minutes.

The other research burden will be to fill out surveys for each school, which we estimate will take at most two hours.

Researcher wellbeing

BIT staff have access to an Employee Assistance Programme, delivered by an external provider called Workplace Options. We do not provide specific counselling services, though we would aid researchers in seeking such help if required. Regular debriefs take place between the Principal Investigator and field researchers, and provide a space to informally share anything that may be concerning them. For anything else, researchers are advised to follow the HR wellbeing policy.

For recruiting participants, we use a BIT issued mobile phone that is located in our secure data room, so our researchers do not need to disclose their personal details.

If interviews or recruitment are conducted in-person the lone worker policy will be followed.

This includes procedures to alert the lead researcher of time, place and anticipated duration of interview or recruitment including sending text messages directly to the lead researcher when starting lone working, at an agreed mid-point and at the end of pre-specified lone working hours.

Consent Forms

Consent Form 1: Teacher and volunteer information/consent form

National School Breakfast Programme Evaluation

We'd like to invite you to take part in a research project to identify and evaluate innovations designed to boost parental engagement with breakfast provision in schools that Magic Breakfast works with. Before you decide to take part in the research, we would like you to understand why the research is being done and what it will involve. Please read the following information carefully.

Who is doing this research?

This research is being conducted by the Behavioural Insights Team, an independent research organisation. The interviews will be carried out by Jessica, Ingrid, Lauren and Sarah who are experienced researchers with enhanced DBS checks.

What is this research about?

The purpose of this research is to better our understanding of how the Magic Breakfast programme has worked for those involved. Interviews will explore how you found out about the programme and your experience of delivering it. We are also interested in any recommendations you may have to improve the programme.

What will I have to do?

We would like you to have a one-to-one chat with one of the researchers. This will take no longer than 30 minutes. You do not have to answer any questions you don't want to, and can stop taking part in the interview at any time without giving us a reason.

How is confidentiality maintained?

We may use anonymous quotes in our report, but we will not keep any information about you from these discussions other than your name (this is so that we can respect any wish to opt-out after the discussion has happened) and the responses to our questions. The exception to this is if we think you might be at risk of harm, or someone else might be, in which case we would tell someone who could help.

Your data will not be shared with anyone outside the research team. All the data will be stored either on hard-disk encrypted computers or securely on on Google Drive, both of on secure password protected computers to which only members of the research team will have access. When we are writing up the research findings we will double check it is not possible to identify either you or the school from what we report. You can also ask to see your transcript so you can check that identifiable information has been removed.

How do I get involved?

You are free to decide whether you'd like to take part. To agree to take part, please sign the form below and bring it with you to the interview.

What if I change my mind?

You can change your mind at any time about participating. You don't need to give a reason to withdraw. If you change your mind later, just email us and we will delete your data. This can be done up until we have published the report, in May 2020 after which we will have deleted the data regardless.

What if I have any questions?

Please email magicbreakfastproject@bi.team.

Consent Form

If you are happy to participate in the study please read the following and tick or cross the boxes before signing at the bottom of the form.

- I have read (or had read to me) the research information sheet and understand what it is about.
- I have had time to ask questions about the research.
- I understand that taking part in the research is voluntary.
- I understand that I am free to withdraw from the research at any time without giving a reason.
- I am happy to be recorded during the research interview
- I agree to the use of quotes in a report that do not identify me.

Signature: _____

Name (Print): _____

Date: _____

To make a complaint about the research please email magicbreakfastproject@bi.team.

National School Breakfast Programme Evaluation

The Behavioural Insights Team are looking to chat with students involved in the Magic Breakfast programme. We would like to invite you to take part.

Who is doing this research?

This research is being done by the Behavioural Insights Team, a research organisation. The interviews will be with Jessica, Ingrid, Lauren or Sarah who are really friendly and have lots of experience chatting with young people.

What is this research about?

We are trying to learn more about your experience of Magic Breakfast. We want to know how you found out about the breakfast club, what you think of the food, and whether you have any tips on how to improve it.

What will I have to do?

We would like you to have a one-to-one chat with one of the researchers. This will take no longer than 30 minutes. You do not have to answer any questions you don't want to, and can stop taking part in the interview at any time without giving us a reason.

Will what I say remain private?

We might like to include things that you have told us in a report, but we will not mention your name, or your school, or any of your friend's names. We will not keep any information about you from these discussions other than your name (this is so that if you want us to delete the information we have about you/your data after the discussion has happened we can) and the responses to our questions. You or your parent/guardian can also ask to see the notes we take during the interview so you can check that any information that is linked to your name has been removed.

Anything you tell us will be kept private unless we think you might be at risk of harm, or someone else might be, in which case we would tell someone who could help you.

How do I get involved?

You are free to decide whether you'd like to take part. To agree to take part, please sign the form below and bring it with you to breakfast club. You will also need to ask your parent/guardian if it's OK for you to take part and give them the other form attached to read and sign.

What if I change my mind?

You can change your mind at any time about taking part and you don't need to give a reason. If you change your mind later, just email us and we will delete your data. This can be done up until we have written the report, in May 2020 after which we will have deleted the data anyway.

What if I have any questions?

Please email magicbreakfastproject@bi.team.

Consent Form

If you are happy to take part in the study, please read the following and tick or cross the boxes before signing at the bottom of the form.



No



Yes

- I have read (or had read to me) the research information sheet and understand what it is about.
- I have had time to ask questions about the research
- I understand that taking part in the research is voluntary.
- I understand that I am free to withdraw from the research at any time without giving a reason.
- I happy to be recorded during the research interview
- I agree to the use of quotes in a report that are not linked to my name.
- I understand that to take part in this study, my parent/guardian must also agree

I agree to take part in this research

Signature: _____

Name (Print): _____

Date: _____

National School Breakfast Programme Evaluation

The Behavioural Insights Team are looking to chat with children involved in the Magic Breakfast programme. We would like to invite your child to take part.

Who is doing this research?

This research is being conducted by the Behavioural Insights Team, an independent research organisation. The interviews will be carried out by Jessica, Ingrid, Lauren and Sarah who are experienced researchers. All researchers have a full Disclosure and Barring Service (DBS) check to reassure you that they are safe to work with young people. The school is also aware that the research is being conducted.

What is this research about?

The purpose of this research is to better our understanding of how the Magic Breakfast programme has worked for those involved. This will explore how your child found out about the breakfast club, their opinions on the food provided, and their overall experience of the programme. We are also interested in any recommendations your child may have to improve the programme.

What does this research involve?

We would like your child to have an informal one-to-one chat with one of the researchers. This will take no longer than 30 minutes. Participation is entirely voluntary. Your child does not have to answer any questions they don't feel comfortable with, and can stop taking part in the interview at any time without giving us a reason.

What does this mean for me as a parent/guardian?

We want to make sure you have no problem with us discussing the programme with your child. It is very important to us not to do anything you are not happy with. As such, we will only speak to your child about the research if you have let us know that you are happy for us to do so.

What if my child does not want to take part?

We would never make your child do something they do not want to do. Even if you consent they will still need to decide whether or not to participate. There will be no consequences for not participating. In addition, if you or they decide afterwards that you are not happy for us to use your child's responses you can withdraw by emailing magicbreakfastproject@bi.team. This can be done up until we have published the report, in May 2020.

What will you do with my child's data?

The interview will be audio-recorded using a dictaphone, then immediately transferred to a secure location and deleted from the device. After transcribing and anonymising the data, removing all identifiable information, we will destroy the original recording within 3 months of the project completing. You can request to see the anonymised interview transcript if you wish. We will keep these anonymised transcripts for up to 3 years after the project reports.

How is confidentiality maintained?

We may use anonymous quotes in our report, but we will not keep any information about your child from these discussions other than their name (this is so that we can respect any wish to opt-out after the discussion has happened) and the responses to our questions. The exception to this is if we think your child might be at risk of harm, or someone else might be, in which case we would tell someone who could help.

Your child's data will not be shared with anyone outside the research team. All the data will be stored on Google Drive on secure, password protected computers to which only members of the research team have access. When we are writing up the research findings we will double check it is not possible to identify either children or schools from what we report. You or your child can also ask to see the transcript so you can check that identifiable information has been removed.

How can my child take part? There is a form attached to this letter and we would be very grateful if you could give this form to your child to bring to the breakfast club.

What if I have any questions? Please email magicbreakfastproject@bi.team.

Consent Form

If you are happy for your child to participate in the study please read the following and tick or cross the boxes before signing at the bottom of the form.



No



Yes

- I have read (or had read to me) the research information sheet and understand what it is about.
- I have had time to ask questions about the research.
- I understand that my child's participation in this research is voluntary and they or I can request to be withdrawn from the research at any time without giving a reason.
- I am happy for my child to be recorded during the research interview
- I agree to the use of quotes in a report that do not identify my child.

Child's name (Print): _____

Parent/guardian signature: _____

Name (Print): _____

Date: _____

To make a complaint about the research please email magicbreakfastproject@bi.team.

Data protection

Qualitative data will be stored on encrypted password protected devices (secure USB pens and then the laptop of researchers). Sound files will be deleted immediately after transcription and, and all written data will be pseudonymised. Participants will be assigned a unique identifier number through the interview, one protected file will contain participant name and link their unique identifier. The participants will be made aware they can remove their data at a later date, up until the report is published in May 2020. We will keep their name and unique identifier protected file until the report is published in case participants decide to remove their data from our research at a later date.

BIT will be the Data Controller of these transcripts and our legal basis for processing this data is on the basis of opt-in consent (the procedures for opt-in consent are described in the section of this study plan on [Ethics and Risks](#) and the consent forms are here: [Consent Forms](#)). Consent applies here as either participants (for students over 16) or their parents/guardians are capable of opting in to consenting to have their data used by us, given the information we will provide to them. We will not share the un-anonymised qualitative data with any other organisation for any purposes (including the EEF).

We will also let participants know they can see their pseudonymised transcript to check for themselves identifiable information has been removed. We will have informed consent of the participants to use their data in this way.

We will not be processing any special category data.

Other quantitative data will be aggregate at the school level, and as such will not be personal data (because it is not about identifiable individual persons) and is not subject to the GDPR.

Our Data Security Policy is available [here](#).

Personnel

The project team at FAMB (MB is Magic Breakfast and FA is Family Action) will consist of the following people:

- Alex Cunningham - CEO of MB
- Rachael Meagher - Head of Schools at MB
- The regional managers and SPs at MB
- Nicola Vickery - Deputy Director Services & Innovation and Programme Manager for National School Breakfast Programme
- Brendon McCoy - Head of Digital Systems at FA
- Mandy O'Callaghan - Operations Manager at FA
- Stacey Warren - Impact and Influencing Manager at FA

The evaluation team at BIT will consist of the following people:

- Pantelis Solomon (Principal Investigator) – BIT
- Daniel Gibbons (Project Lead, Quantitative & Cost Analysis) – BIT
- Ingrid Broch-Due (Scaling Lead, Qualitative Research Lead) - BIT

- Jessica Heal (Qualitative QA) - BIT
- James Lawrence (Quantitative QA) - BIT
- Alex Manby (Research Assistance, Qualitative/Quantitative Research) - BIT
- Louise Jones (Project Coordination) - BIT
- Sarah Breathnach (Behavioural and Qualitative Research) - BIT
- Dr. Jake Anders (Academic Advisor) - BIT
- Lisa Larsen (Strategy QA) - BIT

The intervention will be handled by FAMB, as follows:

- MB will design and deliver the NSBP
- FA will collect the management information about the intervention
- FA will transmit this data on a monthly basis to BIT
- FAMB will help BIT contact schools
- FAMB will note how BIT's feedback is used.

The design and delivery of the evaluation process will be BIT's responsibility:

- BIT will analyse the quantitative data
- BIT will work with FAMB to organise qualitative and cost data collection
- BIT will conduct the interviews and observations
- BIT will provide monthly feedback with FAMB and an eventual final report to FAMB and the EEF.

Evaluation Frame

Here we outline the specific quantitative and qualitative indicators we will examine, and tie together the research questions with the components of the scale-up process. We now outline the indicators by [Research Area](#).

Area of focus 1: Monitoring the scale-up mechanism itself and providing feedback to FAMB while the scale-up progresses

Guiding question: *How is the intervention scaled up in practice and is this effective and coordinated?*

Research Sub-area	Indicators	Data Source	Target	Component of Scale-up
Strategy and coordinating activities	<p>FAMB and BIT have a clear and shared understanding of the theory that underpins the scaling up</p> <p>FAMB clearly outlines the plan for activities such as</p> <ul style="list-style-type: none"> - recruitment of SPs, - structure of FAMB - delivery of breakfast to schools - mobilisation and 	Workshop with FAMB	<p>Agreement on a shared theory of scaling up.</p> <p>Existence of a comprehensive scale-up strategy and appropriate consortium structure.</p>	All (Vertical focussed)

	advocacy.			
Recruitment and contact	<p>Number of contacts</p> <p>Number of breakfast clubs</p> <p>Number of school visits, by stage</p> <p>Grant receipts</p> <p>Number and type of events and attendance</p>	FAMB Management Information	<p>The target is around recruited schools - which is 1750 schools.</p> <p>We will monitor progress rather than having targets for these points.</p>	Horizontal
School support in practice	<p>Schools express that the support from FAMB has been sufficient and effective in helping them set up/ expand breakfast provision</p> <p>Recruitment and launch visits from FAMB provide sufficient support and tailoring for schools to implement new/extended breakfast provision</p> <p>SPs have attended sufficient training prior to recruiting and supporting schools.</p> <p>SPs have the time, resource and understanding to support schools in the delivery of MB</p>	Qualitative Research	<p>For the two schools indicators: agreement from 75 percent of interviewed schools.</p> <p>For the two SPs indicators: agreement from 75 percent of interviewed SPs.</p> <p>We will also describe the qualitative evidence around these points in general.</p>	Horizontal

Barriers and facilitators	<p>SPs and School Coordinators communicate effectively</p> <p>We will identify the barriers and facilitators to scale-up and provide recommendations</p>	Qualitative Research	<p>Agreement from 75 percent of interviewed SPs.</p> <p>Facilitators and barriers are purely descriptive indicators (so there are no targets).</p>	Functional
---------------------------	--	----------------------	--	------------

Area of focus 2: Monitoring the fidelity of the intervention within schools

Guiding question: *Is the intervention scaled up in a way that ensures fidelity to the provision of universal, free, healthy breakfast to disadvantaged pupils? What are the barriers and enablers of effective adoption of the intervention?*

Research Sub-question	Indicators	Source	Target (if any)	Component of Scale-up
Fidelity of the intervention	<p>Breakfast is free</p> <p>Breakfast items are nutritious</p> <p>Breakfasts are easy to access for all children</p> <p>Breakfast is provided before or early in the school day</p> <p>Proportion of schools that provide free breakfast for all pupils during programme versus before programme</p> <p>All pupils are eligible to receive breakfast</p> <p>Targeted pupils take advantage of breakfast provision</p>	<p>SC survey/OF</p> <p>SC survey</p> <p>SC survey/OF</p> <p>SC survey/OF</p> <p>SC survey</p>	<p>We acknowledge that these goals is less under the control of FAMB.</p> <p>However, as a stretch goal we believe a reasonable aim is 75-80 percent of all schools would be compliant with the indicator (receive a 3 or above on the outcomes framework or are a 'yes' where applicable).</p> <p>For the proportion that provided free breakfast before the programme, we aim to see a relative improvement of 20 percent (i.e. from a baseline of 50 percent to 60 percent or 70 percent to 84</p>	Functional

	<p>Proportion of pupils receiving breakfast who pay for it</p> <p>Cost of breakfast to charged pupils</p> <p>More detailed fidelity measurement is undertaken by FAMB in their outcomes framework which we will also draw on.</p>	SC survey	percent).	
Scale-up effects	Extent to which schools as a result of support constraints or grant constraints change the programme provision	Qualitative Research	We will only assess this point in a descriptive way.	Functional
Challenges	<p>Students are aware of and can access breakfast</p> <p>Students are happy with breakfast provision variety</p> <p>Students do not experience stigma around accessing breakfast</p> <p>Breakfast provision is not overly reliant on staff goodwill</p>	Qualitative Research/OF	We will assess this point both in a descriptive way and for the first 3 indicators aim in qualitative work to have over 75 percent of students meet the indicator.	

Area of focus 3: Retrospective assessment of the scale-up and its average costs

Guiding question: *Was the scale-up implemented successfully (in terms of correct adoption and spread) and for reasonable costs? What were the overall barriers and enablers of the scale-up process?*

Research Sub-question	Indicators	Source	Target (if any)	Component of Scale-up
Are grant money to schools spent appropriately and effectively?	Proportion of schools that have received £500 and additional (e.g. £2,000) grants	SC survey	All schools should receive the £500 grant. N/A for £2000 grant.	Vertical

	<p>Grant money is spent as intended and agreed upon in the recruitment meeting with FAMB</p> <p>Grant money has covered the cost of the necessary materials and these are in use</p> <p>Schools with greater needs have been allocated sufficient funds</p> <p>Schools experience the funds to be sufficient in covering the costs</p> <p>Schools have spent grants on setting up the breakfast club</p> <p>Schools have spent grants on running the breakfast club</p> <p>Distribution of additional grant allocation to schools by schools' i) FSM band, ii) pupil premium funding band, iii) prior breakfast provision model, and iv) other relevant CFR categories</p> <p>Schools have received other funding</p> <p>Barriers and facilitators to spending grant money as intended are identified</p>	<p>Qualitative Research</p>	<p>Aim to have 100 percent of schools meet this target.</p> <p>Descriptive indicator</p> <p>Descriptive indicator</p> <p>Descriptive indicator</p> <p>Descriptive indicator</p> <p>Descriptive indicator</p> <p>Descriptive indicator</p> <p>Descriptive indicator</p> <p>Descriptive indicator</p> <p>Descriptive indicator</p>	
--	---	-----------------------------	--	--

			indicator	
What factors predict whether schools sign up to the programme?	School is enrolled in programme School provides universal, free breakfast as part of programme School provides sit-down breakfast before school day	MI SC survey	Descriptive exercise	Horizontal
What factors predict pupil attendance in the programme?	Average share of pupils at school attending breakfast club per day	SC survey	Descriptive exercise	Horizontal
What differences are there in the pupil attendance at schools/use of breakfast provision in schools with breakfast clubs or extended reach?	Average share per day of pupils and targeted pupils at school attending sit-down breakfast clubs in general, before and during school day Average share per day of pupils and targeted pupils at school attending grab-and-go breakfast provision in general, before and during school day	SC survey	N/A - we want in this aim to see whether the non-club provision works as well as the breakfast club provision.	Functional
What are the estimated average costs per pupil and staff hours spent in programme?	Average costs per pupil per school year Average number of hours spent by staff category per school and per pupil per school year	SC survey & FAMB excel answer sheets SC survey	Descriptive	
Is the scaling-up increasing the average costs and the allocation of	Average costs per pupil at the entire school per school year in 2018-20 programme compared to 2014-	SC survey, FAMB excel answer sheets & 2016 report	Aim that it does not increase inflation-adjusted costs from the IFS/NCB estimates from the pilot study for either	

staff to the programme?	15 programme Average number of hours spent by staff category per school and per pupil at the entire school per school year in 2018-20 programme compared to 2014-15 programme	SC survey & 2016 report	measure.	
-------------------------	--	-------------------------	----------	--

Area of focus 4: Evaluate the future sustainability of the scale-up

Guiding question: *Is the intervention sustainable beyond the current funding period?*

Research Sub-question	Indicators	Source	Target (if any)	Component of Scale-up
What are schools' plans for future breakfast provision, and how do they perceive the sustainability of funding?	Schools share plans for continuing programme	Qualitative Research SC survey	100 percent of schools should complete plans.	Vertical
	Schools find ways of cooperating to sustain programme		Descriptive indicator	
	Schools share experiences of facilitators and barriers to sustain programme		Descriptive indicator	
	Schools have plans in place for continued breakfast provision		85 percent of schools will have plans	
	Plan for continued breakfast provision is reviewed by		100 percent of schools should be helped by FAMB	

	<p>FAMB and school is aided to make this</p> <p>Proportion of schools that have decided to continue with some form of food/drinks provision</p> <p>Proportion of schools that have decided not to continue any form of food/drinks provision because i) the Magic Breakfast programme has not achieved its objectives, ii) the school lacks the financial means to continue, iii) the school lacks the manpower to continue the food/drinks provision</p> <p>Proportion of schools expecting to decrease / increase the quality / quantity of future breakfast provision</p> <p>Difference between proportion of schools providing free</p>		<p>85 percent will continue provision</p> <p>Descriptive elaboration of above - aim to have 0-5 percent on i)</p> <p>Aim to have no more than 10 percent of schools decrease quantity or quality</p> <p>Aim to have no more than 10</p>	
--	---	--	---	--

	<p>breakfast in 2018-20 programme versus expects to do so in the future</p> <p>Difference between proportion of schools providing sit-down breakfast in 2018-20 programme versus expects to do so in the future</p> <p>Difference between proportion of schools providing breakfast available for all pupils in 2018-20 programme versus expects to do so in the future</p> <p>Difference between proportion of schools providing breakfast free to all pupils in 2018-20 programme versus expects to do so in the future</p> <p>Difference between proportion of schools</p>		<p>percent beyond those who drop out charge all students</p> <p>Descriptive target</p> <p>Aim to have no more than 10 percent of all schools who haven't scrapped provision entirely limit provision</p> <p>Elaboration of above</p>	
--	---	--	--	--

	<p>spending pupil premium funding on breakfast club in 2018-20 programme versus expects to do so in the future</p> <p>Average amount of funding received from other charities, private businesses, public institutions and other donations per school per year during programme versus expected in the future</p> <p>Proportion of School Coordinators who think their school has a realistic plan for sustainably financing the food/drinks provision once the support from Magic Breakfast ends</p>		<p>Descriptive target</p> <p>Descriptive target</p> <p>85 percent of schools</p>	
<p>What are expected average costs going forward (with and without scale-up activities continuing)?</p>	<p>Average ongoing costs for schools per pupil per year for schools in 2018-20 programme</p>	<p>SC survey</p> <p>SC survey & FAMB excel answer sheets</p>	<p>These indicators are all descriptive indicators, not targets</p>	<p>Vertical</p>

	<p>Average ongoing costs for schools and FAMB per pupil per year corrected for average expected additional funding going forward for schools in 2018-20 programme</p> <p>Average ongoing costs for schools and FAMB per pupil per year for schools in 2018-20 programme</p> <p>Average set-up and ongoing costs for new schools (beyond the IDACI list) per pupil per year</p> <p>Average set-up and ongoing costs for new schools (beyond the IDACI list) and FAMB per pupil per year corrected for average expected additional funding going forward</p> <p>Average set-up and ongoing costs for new schools (beyond</p>	<p>SC survey & FAMB excel answer sheets</p> <p>SC survey & MI</p> <p>SC survey, FAMB excel answer sheets & MI</p> <p>SC survey, FAMB excel answer sheets & MI</p>		
--	--	---	--	--

	the IDACI list) and FAMB per pupil per year			
--	---	--	--	--

Cost Analysis Details

Purpose

As outlined previously ([Key Research Areas Summary](#) and [Cost Analysis](#)), the overall purpose of the cost analysis is to examine:

1. The cost of the current intervention compared to the prior evaluation (Research Subarea 3c),
2. The future sustainability of the programme (Research Subarea 4c).

This Annex provides technical details on how we will achieve these goals.

Research Subarea 3c: Compare costs of scaled-up intervention to prior evaluation

The cost analysis i) estimates the average costs per pupil per year of the programme and ii) compares this with the estimated costs of the 2014-15 Magic Breakfast programme.

The following table describes the cost data we will calculate this using (where costs do not overlap - we have changed the IFS/NCB data collection to fit better with guidance):

Incurring part	Cost analyses	Cost comparison
Schools	<p>Set-up costs:</p> <ol style="list-style-type: none"> 1. Furniture 2. Improvements of the physical environment 3. Catering facilities 4. Resources 5. Other equipment 6. Staff training and recruitment <p>Ongoing costs:</p> <ol style="list-style-type: none"> 1. Additional food/drinks purchases 2. Salary costs due to intervention <ol style="list-style-type: none"> a. Paid extra hours to teachers b. Paid extra hours to teaching assistants c. Paid extra hours to catering staff d. Paid extra hours to caretaking and maintenance e. Paid extra hours to pastoral staff 	<p>Set-up costs:</p> <ol style="list-style-type: none"> 1. Furniture 2. Improvements of the physical environment 3. Catering facilities 4. Resources 5. Other equipment 6. Staff training and recruitment <p>Ongoing costs:</p> <ol style="list-style-type: none"> 1. Additional food/drinks purchases

	f. Paid extra hours to office staff g. Paid extra hours to volunteers h. Paid extra hours to other staff 3. Other ongoing costs	
Magic Breakfast	Ongoing costs: 1. Food/drinks purchases (in retail prices): a. Porridge b. Bagels c. Cereals d. Other e. Transaction costs 2. Support to schools: a. Salary costs b. Back office support c. Other 3. Other intervention-related costs	Ongoing costs: 1. Food/drinks purchases (in retail prices): a. Porridge b. Bagels c. Cereals d. Other
Family Action	Ongoing costs: 1. Project management a. Salary costs b. Back office support c. Other project management costs 2. Other costs	

Costs will be adjusted from nominal to real terms following HM Treasury's [Green Book](#) guidelines based on inflation data from the Office for Budget Responsibility (OBR). This will be done using the historic (RAOF 3c) and forecasted (RAOF 3c) whole economy (GDP - gross domestic product) inflation data from the OBR, *cf. Green Book section 5.12*.

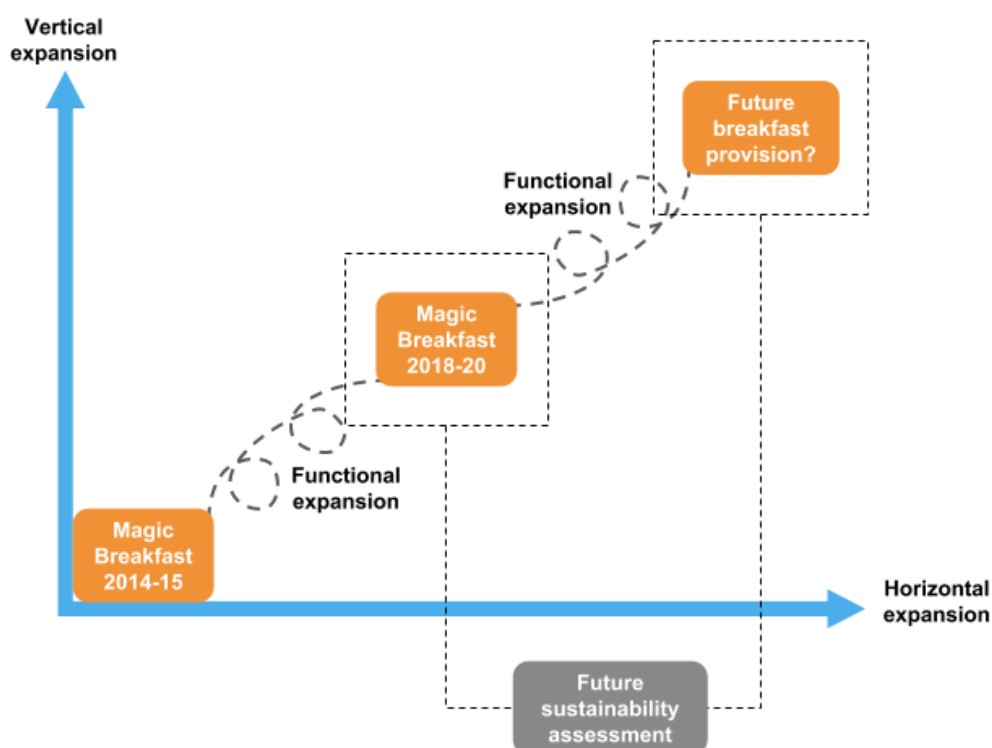
Outliers more than twice the IQR (interquartile range) above or below the mean will be removed.

Survey respondents will be able to indicate cost and staff hours in different time units to secure high reliability. To get costs and staff hours per school year, the following time unit conversion rules will be used (same as in 2016 evaluation):

- £ and hours indicated per year will not be converted;
- £ and hours indicated per month will be multiplied by 8.5;
- £ and hours indicated per week will be multiplied by 38;
- £ and hours indicated per day will be multiplied by 190.

Research Subarea 4c: Future Sustainability of the Programme

The quantitative part of the future sustainability assessment will estimate the expected average costs per pupil per school year for breakfast provision beyond 2018-20 Magic Breakfast programme. In terms of the NSBP this looks like:



The assessment will follow the methodology outlined in the cost analysis in Goal 1. To assess the future sustainability *with* and *without* further scale-up and with different funding arrangements in place, the expected future costs will be estimated for two groups of schools in three central scenarios:

Scenario	Schools enrolled in 2018-20 programme	New schools (beyond IDACI list)
Scenario 1: All FAMB costs covered by external funding (charities, public funding, private donations, etc.) (best case scenario)	Sub-analysis 1	Sub-analysis 4
Scenario 2: Some FAMB costs covered by external funding (charities, public funding, private donations, etc.), but breakfast club membership fee or other additional school costs necessary going forward, based on central future funding estimate (realistic scenario)	Sub-analysis 2	Sub-analysis 5
Scenario 3: All FAMB costs will have to be covered by schools (worst case scenario)	Sub-analysis 3	Sub-analysis 6

The *likelihood* and *potential consequences* of each of these scenarios will be assessed based on qualitative (interview, observation and document review) as well as quantitative (survey) responses from schools and FAMB.

We now provide details on each of these analyses. We will follow the same inflation corrections and cost adjustments discussed in the previous section.

Sub-analysis 1: Best case scenario for schools enrolled in 2018-20 programme

The best case scenario, where all FAMB costs will be covered by new external funding, will be calculated as the ongoing average costs for schools per pupil per year in the 2018-20 period.

Incurring part in survey	Cost components
Schools	Ongoing costs: <ol style="list-style-type: none"> 1. Additional food/drinks purchases 2. Salary costs due to intervention <ol style="list-style-type: none"> a. Paid extra hours to teachers b. Paid extra hours to teaching assistants c. Paid extra hours to catering staff d. Paid extra hours to caretaking and maintenance e. Paid extra hours to pastoral staff f. Paid extra hours to office staff g. Paid extra hours to volunteers h. Paid extra hours to other staff 3. Other ongoing costs

Sub-analysis 2: Realistic scenario for schools enrolled in 2018-20 programme

The realistic scenario will be calculated as the ongoing average costs for schools, Magic Breakfast and Family Action per pupil per year (cost components) *subtracted by* the expected marginal extra funding to be received by schools in the future relative to the 2018-20 period on average per pupil per year (funding components).

Incurring part in survey	Cost components
Schools	Ongoing costs: <ol style="list-style-type: none"> 1. Additional food/drinks purchases 2. Salary costs due to intervention <ol style="list-style-type: none"> a. Paid extra hours to teachers b. Paid extra hours to teaching assistants c. Paid extra hours to catering staff d. Paid extra hours to caretaking and maintenance e. Paid extra hours to pastoral staff f. Paid extra hours to office staff g. Paid extra hours to volunteers h. Paid extra hours to other staff 3. Other ongoing costs
Magic Breakfast	Ongoing costs: <ol style="list-style-type: none"> 1. Food/drinks purchases (in retail prices): <ol style="list-style-type: none"> a. Porridge b. Bagels

	<ul style="list-style-type: none"> c. Cereals d. Other e. Transaction costs <ul style="list-style-type: none"> 2. Support to schools: <ul style="list-style-type: none"> a. Salary costs b. Back office support c. Other 3. Other intervention-related costs
Family Action	<p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Project management <ul style="list-style-type: none"> a. Salary costs b. Back office support c. Other project management costs 2. Other costs
Receiving part in survey	Funding components
Schools	<p>Average 2018-20 period funding:</p> <ul style="list-style-type: none"> 1. Other charities 2. Private businesses 3. Public funding 4. Other funding/donations <p style="text-align: right;"><i>minus</i></p> <p>Expected future funding:</p> <ul style="list-style-type: none"> 1. Other charities 2. Private businesses 3. Public funding 4. Other funding/donations

Sub-analysis 3: Worst case scenario for schools enrolled in 2018-20 programme

The worst case scenario, where all FAMB costs will have to be covered by schools in the future, will be calculated as the ongoing average costs for schools, Magic Breakfast and Family Action per pupil per year in the 2018-20 period.

Incurring part in survey	Cost components
Schools	<p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Additional food/drinks purchases 2. Salary costs due to intervention <ul style="list-style-type: none"> a. Paid extra hours to teachers b. Paid extra hours to teaching assistants c. Paid extra hours to catering staff d. Paid extra hours to caretaking and maintenance e. Paid extra hours to pastoral staff f. Paid extra hours to office staff g. Paid extra hours to volunteers

	<ul style="list-style-type: none"> h. Paid extra hours to other staff 3. Other ongoing costs
Magic Breakfast	<p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Food/drinks purchases (in retail prices): <ul style="list-style-type: none"> a. Porridge b. Bagels c. Cereals d. Other e. Transaction costs 2. Support to schools: <ul style="list-style-type: none"> a. Salary costs b. Back office support c. Other 3. Other intervention-related costs
Family Action	<p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Project management <ul style="list-style-type: none"> a. Salary costs b. Back office support c. Other project management costs 2. Other costs

Sub-analysis 4: Best case scenario for new schools (beyond the IDACI list)

The best case scenario for new schools (beyond the IDACI list), where all previous FAMB costs will be covered by external funding, will be calculated as the set-up and ongoing average costs for schools per pupil per year in the 2018-20 period, based on a sub-set of the schools enrolled in the 2018-20. The subset of schools will be selected to approximately represent the potential new schools beyond the IDACI list based on relevant background characteristics (e.g. pupil premium funding, FSM band, etc.).

Incurring part in survey	Cost components
Subset of representative schools	<p>Set-up costs:</p> <ul style="list-style-type: none"> 1. Furniture 2. Improvements of the physical environment 3. Catering facilities 4. Resources 5. Other equipment 6. Staff training and recruitment <p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Additional food/drinks purchases 2. Salary costs due to intervention <ul style="list-style-type: none"> a. Paid extra hours to teachers b. Paid extra hours to teaching assistants

	<ul style="list-style-type: none"> c. Paid extra hours to catering staff d. Paid extra hours to caretaking and maintenance e. Paid extra hours to pastoral staff f. Paid extra hours to office staff g. Paid extra hours to volunteers h. Paid extra hours to other staff <p>3. Other ongoing costs</p>
--	---

Sub-analysis 5: Realistic scenario for new schools (beyond the IDACI list)

The realistic scenario new schools will be calculated as the set-up and ongoing average costs for a representative subset of schools, Magic Breakfast and Family Action per pupil per year (cost components) *subtracted by* the expected marginal extra funding to be received by the subset of schools in the future relative to the 2018-20 period on average per pupil per year (funding components).

Incurring part in survey	Cost components
Subset of representative schools	<p>Set-up costs:</p> <ul style="list-style-type: none"> 1. Furniture 2. Improvements of the physical environment 3. Catering facilities 4. Resources 5. Other equipment 6. Staff training and recruitment <p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Additional food/drinks purchases 2. Salary costs due to intervention <ul style="list-style-type: none"> a. Paid extra hours to teachers b. Paid extra hours to teaching assistants c. Paid extra hours to catering staff d. Paid extra hours to caretaking and maintenance e. Paid extra hours to pastoral staff f. Paid extra hours to office staff g. Paid extra hours to volunteers h. Paid extra hours to other staff 3. Other ongoing costs
Magic Breakfast	<p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Food/drinks purchases (in retail prices): <ul style="list-style-type: none"> a. Porridge b. Bagels c. Cereals d. Other e. Transaction costs 2. Support to schools:

	<ul style="list-style-type: none"> a. Salary costs b. Back office support c. Other <p>3. Other intervention-related costs</p>
Family Action	<p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Project management <ul style="list-style-type: none"> a. Salary costs b. Back office support c. Other project management costs 2. Other costs
Receiving part in survey	Funding components
Subset of representative schools	<p>Average 2018-20 period funding:</p> <ul style="list-style-type: none"> 1. Other charities 2. Private businesses 3. Public funding 4. Other funding/donations <p style="text-align: right;"><i>minus</i></p> <p>Expected future funding:</p> <ul style="list-style-type: none"> 1. Other charities 2. Private businesses 3. Public funding 4. Other funding/donations

Sub-analysis 6: Worst case scenario for new schools (beyond the IDACI list)

The worst case scenario for new schools, where all previous FAMB costs will have to be covered by schools in the future, will be calculated as the set-up and ongoing average costs for a representative subset of schools, Magic Breakfast and Family Action per pupil per year in the 2018-20 period.

Incurring part in survey	Cost components
Subset of representative schools	<p>Set-up costs:</p> <ul style="list-style-type: none"> 1. Furniture 2. Improvements of the physical environment 3. Catering facilities 4. Resources 5. Other equipment 6. Staff training and recruitment <p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Additional food/drinks purchases 2. Salary costs due to intervention <ul style="list-style-type: none"> a. Paid extra hours to teachers

	<ul style="list-style-type: none"> b. Paid extra hours to teaching assistants c. Paid extra hours to catering staff d. Paid extra hours to caretaking and maintenance e. Paid extra hours to pastoral staff f. Paid extra hours to office staff g. Paid extra hours to volunteers h. Paid extra hours to other staff <p>3. Other ongoing costs</p>
<p>Magic Breakfast</p>	<p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Food/drinks purchases (in retail prices): <ul style="list-style-type: none"> a. Porridge b. Bagels c. Cereals d. Other e. Transaction costs 2. Support to schools: <ul style="list-style-type: none"> a. Salary costs b. Back office support c. Other 3. Other intervention-related costs
<p>Family Action</p>	<p>Ongoing costs:</p> <ul style="list-style-type: none"> 1. Project management <ul style="list-style-type: none"> a. Salary costs b. Back office support c. Other project management costs 2. Other costs

Prior Evaluation Summary

This evaluation studied the impact of Magic Breakfasts providing free food and support to primary schools to improve their breakfast provision on Key Stage (KS) 1 and 2 maths, reading and writing scores (as *primary outcomes*) and student concentration, behaviour, BMI and attendance/punctuality (as *secondary outcomes*).

Prior Evaluation Conclusions

The primary quantitative conclusions were that:

1. Year 2 students experienced a significant increase of around two months additional progress in reading, writing and mathematics in KS1 assessment compared to year 2 students in control schools.
2. There were indications of progress in year 6 students though not statistically significant increases in attainment in KS2 assessment. There were statistically significant increases in attainment in alternative measures of progress.
3. Secondary findings suggest that it is not just eating breakfast that delivers improvements, but social or other aspects about attending a breakfast club.
4. Delivery of the programme took an average of 820 hours per school per year, including 87 teacher hours, 449 teaching assistant hours, 164 support staff hours, and 100 volunteer hours over the year.
5. The programme was highly cost-effective, with average set-up costs of £3.31 and ongoing costs of £10.75 per year per pupil at the school.

In terms of the process evaluation the key finding was that there was substantial variation in provision across schools as:

- Instead of just providing breakfast clubs, many schools provided in-classroom breakfast provision.
- Costing analyses were viewed as helping make the case for using pupil premium funds to pay for ongoing breakfast provision.
- Timing of provision varied substantially across schools, but students valued later starts and 'soft start' activities which did not feel as much part of usual school time.

The key challenges identified were:

- **Finances:** Schools faced significant budgetary pressures, and as a result turned to either fundraising or charging students to meet funding shortfalls. However, charging students or restricting access was a substantial barrier to students. Relatedly, sustainability was a real concern, especially over staff remuneration and the cost of food without it being provided for free.
- **Staff time:** Delivery of the programme is taxing on teaching and other staff when they have to work outside of normal hours in the breakfast club model.
- **Promotion in schools:** Breakfast clubs were insufficiently promoted by schools. Further, which students were being targeted for breakfast provision varied substantially across schools.
- **Managing demand:** Schools had difficulty managing supply and demand of food, in part due to changing student tastes over short periods of time.
- **In-school logistics and buy-in:** There were in-school logistical challenges including a lack of engagement from school governing bodies, poor delegation, less proactive School Breakfast coordinators, and over-reliance on the goodwill of staff.

In a workshop with Magic Breakfast and Family Action, they identified a further challenge which is **stigma** around obtaining the breakfasts especially for secondary students.