Achievement for All (AfA) Effectiveness Trial

Protocol

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Evaluation Summary	
Age range	Children in Years 4 and 5 at start of 2016/17 school year (e.g. aged 8-10)
Number of pupils	c.4,800 in each year group cohort (c.9,600 total), of whom 20% are designated as the 'target group' (c.960 in each year group cohort)
Number of schools	140
Design	Cluster randomised controlled trial
Primary outcome	Academic attainment in literacy for the Year 5 target group cohort
Version date	03 April 2019

March 2019 updates

- brought protocol in line with minor updates in statistical analysis plan
- added a data protection section clarifying GDPR compliance
- added named research associates
- added a more legible timeline

1   Intervention

1.1 The AfA national pilot

The AfA pilot was designed to address the attainment gap between pupils with SEN and their peers in literacy and numeracy through a two-year school-based intervention. The original model had three strands: (i) Assessment, tracking and intervention; (ii) Structured conversations with parents; and, (iii) Provision for developing wider outcomes. The pilot was conceptualised as one that required strong leadership and involved National Strategies' regional co-ordinators and advisory teachers working with link teachers to develop school action plans around the three strands for intervention. Schools were also provided with additional support from their LAs and link staff attended conferences organised by the National College for School Leadership.

Our national evaluation (Humphrey & Squires, 2010, 2011a, 2011b) of the AfA pilot, which involved c.12,000 pupils attending over 400 schools across 10 Local Authorities (LAs), found significant improvements in teacher assessments across the AFA cohort in both English and Maths. Using national rates of progress among students with SEND as a comparator, the effect sizes associated with these changes ranged from small (e.g. d=0.17) to very large (e.g. d=1.39), but in all cases they were big enough to be practically meaningful. However, there was also clear evidence of differential programme benefits – with progress moderated significantly by stage of SEND provision (e.g. School Action Plus) and primary need (e.g. autism).

In terms of wider outcomes, attendance of persistent absentees improved by around 10% across the sample; and there were significant teacher-reported improvements in positive relationships, and reductions in bullying and behaviour problems when compared to a small control group of pupils from schools not implementing AfA.

Our qualitative process data, gathered from a subsample of 19 case study schools, indicated that schools appreciated the flexibility that AFA allowed. It was most successful when
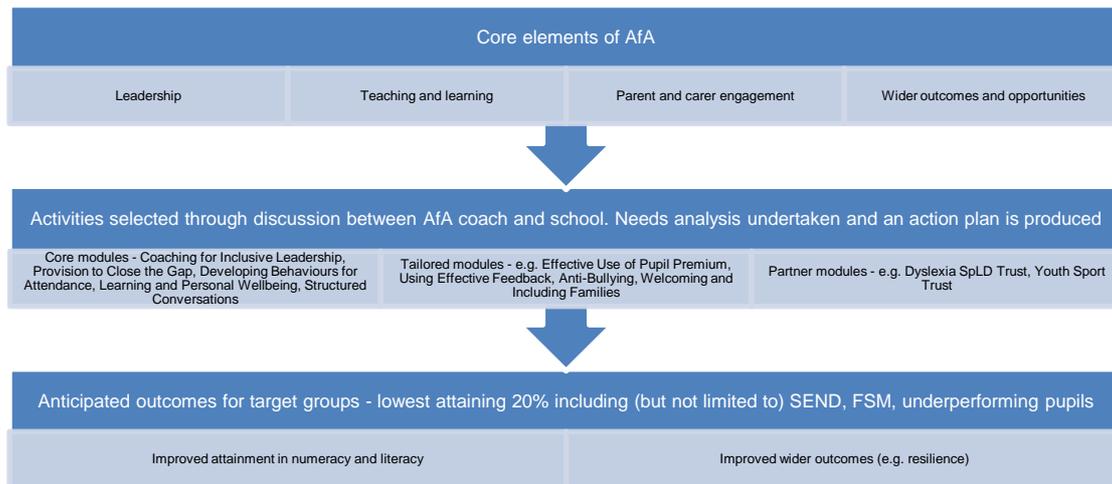
schools built on existing practices and when the lead teacher was a member of the senior management team. Leadership was also found to be important in the implementation of structured conversations with parents. The project provided training and networking opportunities to develop provision for SEN both within and across schools. Schools made better use of data to inform target setting and monitoring of pupil progress in order to inform provision, teaching and promote positive outcomes. The development of structured conversations was particularly helpful by providing a holistic view of pupils and by increasing parental engagement. Schools were determined to engage 'hard-to-reach' parents and made use of additional funding available to extend or adapt existing arrangements.

1.2 The current AfA model

The current model for AfA retains many of the features of the pilot, but has also evolved, as would be expected. It remains a 2-year intervention (in the first instance). The three original strands have been renamed but are essentially covering the same ground, while leadership and governance now features as a distinct core element of the programme. The anticipated outcomes remain focused on literacy, numeracy and wider outcomes (e.g. parental engagement, attendance, engagement in learning, behaviour, participation in extra-curricular school activity; Price Waterhouse Cooper, 2015). AfA's own impact report (Achievement for All, 2015) continues to talk about closing the gap for children with SEND, and the PWC social impact report utilises a similar methodology to the national pilot evaluation to assess the impact of the programme on academic outcomes. As per the pilot, schools remain able to develop action plans and select activities with guidance from an external AfA coach (Achievement for All, 2015). However, the current version of AfA also diverges from the pilot in a number of ways:

- AfA is now nationally rolled out rather than being arranged in clusters of schools. This means that the use of existing networks (e.g. at the LA level) is not emphasised as part of the intervention and schools buy into the project individually.
- Most funding is direct from the school budget (either direct schools grant or pupil premium). However, LAs provide almost a quarter of the AfA funding. A small number of schools (4%) cluster funding. 80% of schools report that the programme is value for money (PWC, 2015); this is interesting from an effectiveness trial perspective with 20% of schools not agreeing that it is value for money.
- AfA now targets the 'bottom 20%' of pupils as defined by each school and this is not limited to pupils with SEN. PWC (2015) show the target population that AfA school champions wanted was mainly children in three categories: those described as 'not achieving'; those in receipt of Free School Meals (FSM); and/or those in receipt of SEN support. AfA has also been extended to include all year groups. In this sense the target group has diversified considerably from the pilot.
- Having been face-to-face in the national pilot, training opportunities now seem to be managed online via 'The Bubble' with 11 programmes, 96 modules totalling 201 units of learning, 437 documents and 396 tools and templates available for school access (PWC, 2015). This resource is continuing to expand.
- There are 27 specific outcomes derived from the AfA theory of change (ToC) (PWC, 2015). These are split across strategic goals, teacher/school outcomes, parent/pupil outcomes and three key outcomes (accelerated progress in attainment, improved social-behavioural outcomes, and improved attendance).

A basic summary of the current AfA intervention model can be seen below.

Core elements of AfA

Leadership	Teaching and learning	Parent and carer engagement	Wider outcomes and opportunities

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Activities selected through discussion between AfA coach and school. Needs analysis undertaken and an action plan is produced

Core modules - Coaching for Inclusive Leadership, Provision to Close the Gap, Developing Behaviours for Attendance, Learning and Personal Wellbeing, Structured Conversations	Tailored modules - e.g. Effective Use of Pupil Premium, Using Effective Feedback, Anti-Bullying, Welcoming and Including Families	Partner modules - e.g. Dyslexia SpLD Trust, Youth Sport Trust

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Anticipated outcomes for target groups - lowest attaining 20% including (but not limited to) SEND, FSM, underperforming pupils

Improved attainment in numeracy and literacy	Improved wider outcomes (e.g. resilience)

In terms of the (adapted) Template for Intervention Description and Replication (TIDieR; Hoffmann et al., 2014), AfA can be described as follows:

1. Brief name

Achievement for All (AfA)

2. Why: Rationale, theory and/or goal of essential elements of the intervention

The overall aim of AfA is to raise the aspirations, access and achievement of pupils in participating schools. It is described as a "tailored, whole-school improvement framework" (PWC, 2013, p.4).

3. Who: Recipients of the intervention

AfA focuses on improving the attainment and wider outcomes of the 'lowest achieving 20%'. As noted elsewhere, the interpretation of exactly *who* this target group comprises is done locally and may vary from site to site. However, it typically includes those in receipt of FSM, SEND support, and/or those described as 'not achieving'.

4. What: Physical or informational materials used in the intervention

A step-by-step guide is provided for participating schools. In addition, they are able to access an online learning platform (The Bubble) containing the various core, tailored and partner modules. The core modules are: Coaching for Inclusive Leadership, Provision to Close the Gap, Developing Behaviours for Attendance, Learning and Personal Wellbeing, Structured Conversations.

5. What: Procedures, activities and/or processes used in the intervention

The intervention begins with a needs analysis performed by an AfA coach and the school's senior leadership team. This results in the generation of an action plan, which typically will include coaching visits alongside training/professional development opportunities. In the standard timeline, coaching visits include bespoke activities that are pertinent at a given point in time (e.g. an introduction to the programme with all staff in the first term of implementation), training in specific aspects of the intervention (e.g. structured conversation training) and termly review meetings.

6. Who: Intervention providers/implementers

Staff in participating schools, supported by AfA coaches.

7. How: Mode of delivery

Face to face, in addition to online (via The Bubble)

8. Where: Location of the intervention

In participating schools

9. When and how much: Duration and dosage of the intervention

Minimum of two school years.

10. Tailoring: Adaptation of the intervention

AfA is designed to be flexible and is expected to be tailored to the specific needs and priorities of each participating school, which are agreed in the initial need analysis. Thus, beyond the core modules noted above, there are a range of tailored and partner modules that schools may choose to undertake. Similarly, the '20% target group' may be interpreted differently in different

schools (e.g. those pupils for whom the most recent test data places them in the bottom 20% vs. those deemed vulnerable to underachievement.

11. How well (planned): Strategies to maximise effective implementation

The principal strategy to maximise effective implementation is the support offered by the AfA coach.

1.3 Significance

The AfA model shows good evidence of promise, particularly in relation to impacting upon the most vulnerable learners in the education system (including those from socio-economically disadvantaged backgrounds). However, there is genuine uncertainty about the robustness of the claims made around the ability of the programme to produce socially significant change in attainment and other outcomes for children.

In relation to the AfA national pilot, there were limitations in the research design that limit the generalisability of findings. Schools involved were determined by the LAs recruited by the DfE rather than being randomly allocated. For the academic attainment outcomes, we relied upon teacher assessments of attainment and there may have been some biasing of reported progress. This data was compared to national rates of progress drawn from the National Pupil Database (NPD) as opposed to a true control group. In terms of external validity, a limitation of the national pilot evaluation was that it was conducted under 'ideal' conditions, with schools having: additional (very generous) funding; additional support from LAs; and, additional oversight of the project by National Strategies and The National College for School Leadership. This limits the generalisability of the pilot findings when considering the impact under 'real world' conditions. Moreover, as noted above the AfA model has evolved significantly since the national pilot.

A more recent evaluation of AfA was conducted as part of the National College for Teaching and Leadership's 'Test and Learn' programme (Churches, 2016) which did not report any impact of the programme on children's academic outcomes. Although this evaluation addressed some of the issues noted above in relation to the national pilot – for example, schools were randomly allocated to receive the intervention or continue their usual practice – it was also significantly flawed in a number of ways that severely limit the security of the reported findings. First, the trial failed to test the full two-year AfA model. Second, the trial experienced an attrition rate of nearly 70%. Third, the trial did not include an implementation and process evaluation. Fourth, there were no sub-group analyses.

Given the above, there is a clear need to provide a robust evaluation of the current 'version' of the AfA programme.

2   Methods

2.1 Research design and randomisation

The trial design is a two-arm cluster randomised controlled trial (RCT) incorporating a comprehensive implementation and process evaluation (IPE).

Schools are the unit of randomisation and will be assigned to implement AfA or continue usual practice throughout the evaluation period. Those schools who are assigned to the usual practice arm will receive a retention incentive of £1000 (to be paid following completion of the remaining waves of data collection) in order to minimise differential attrition.

A minimisation algorithm will be applied, utilising the following school-level co-variates sourced from EDUBASE: %FSM, %SEN, and Attainment[1]. Given the nature of the AfA intervention and the primary trial outcome, these are the most important observables on which to obtain balance at baseline. The randomisation procedure will be conducted independently of the evaluation team by the Manchester Academic Health Science Centre Clinical Trial Units (MAHSC-CTU).

2.2 Research questions

This trial is designed to answer the following research questions:

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[1] Any such information missing from EDUBASE will be sourced directly from the school in question.

1. Compared to usual practice, what is the impact of AfA on children's literacy (primary outcome), maths, attendance[2] and resilience-related[3] outcomes (secondary outcomes)? (quant/qual)
    a. After 5 terms of exposure (Year 5 cohort) (quant)
    b. After 6+ terms of exposure? (Year 4 cohort) (quant)
    c. What are the perceived impacts of AfA among intervention stakeholders (e.g. teachers, head teachers)? (qual)
2. In relation to RQ1 above, are there differential intervention benefits in the above outcomes among pre-specified subgroups of children? (quant/qual)
    a. Among children eligible for free school meals (FSM)? (quant)
    b. Among the target group of children identified by participating schools as belonging to 'the lowest achieving 20%'? (quant)
    c. What processes underpin any differential intervention benefits identified? (qual)
3. How is AfA implemented, and what difference does it make? (quant/qual)
    a. How and why does AfA implementation vary? (quant/qual)
    b. To what extent does implementation variability moderate intervention outcomes?
        i. Do outcomes vary as a function of 'on treatment' status? (quant)
        ii. Do differential intervention benefits among specified subgroups vary as a function of 'on treatment' status? (quant)
        iii. What are the proposed critical components of AfA, and to what extent does their relative presence/absence influence outcomes? (quant/qual)
    c. To what extent does contextual variation influence the implementation of AfA (and, subsequently, outcomes)? (quant/qual)
        i. How and why is this the case? (qual)
4. Is there evidence to support the AfA theory of change? (quant/qual)

2.2 Participants

160 primary schools will be recruited by AfA. In the first instance they will attempt to recruit schools in the North East of England but will broaden out to other regions as required. AfA's planned recruitment strategy includes 'talking head' videos, presentations, and network events. In terms of eligibility, schools already (or previously) involved in the AfA programme (or its pilot) will be excluded. Overall, the expectation is that the school sample mirrors the national EverFSM average for Key Stage 2 (c.30%).

The target figure of 160 schools is inclusive of the 140 needed for the trial to be adequately powered (see 2.4 below) while allowing for some attrition at the baseline data collection stage. Within these schools, our target cohorts are children beginning Years 4 (RQ1b) and 5 (RQ1a) in September 2016. Assuming a cluster size of approximately 40 (based on two previous trials led by the evaluation team and also AfA's records from their current primary school customers), the total sample size in each cohort will be N=4,800, of which we anticipate subgroups of between 1,440 (RQ2a – 30% of sample expected to be eligible for FSM) and 960 (RQ2b – '20%' target group). The exact composition of the 20% target group is discussed and agreed with each school during the initial needs analysis conducted at the beginning of the intervention. However, as this target group needs to be identified in *all* schools *prior* to randomisation, participating schools in this trial will nominate their 20% target group as part of the process of signing up for the evaluation using guidance provided by AfA.

2.3 Outcome measures

2.3.1 Primary outcome measure

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[2] Among children in the AfA target group ('the lowest achieving 20%').
[3] Specifically, children's self-reported self-esteem, goals and aspirations, family connection, and school connection.

The primary outcome measure for the trial is children's academic attainment in reading for year 5. Specifically, we are interested in the impact of AfA on the literacy levels of (a) the AfA 'target group' and (b) the wider population of children in our trial cohort as joint primary outcomes.

This data will be sourced from the National Pupil Database (NPD), with end of Key Stage 1 data used as a pre-test covariate and end of Key Stage 2 data used as the main post-test outcome. Using NPD data minimises attrition and bias (and in particular, preserves intention to treat (ITT) analyses without the need for imputation), greatly reduces the data burden on participating schools, and increases the external validity of the evaluation (since this data provides the primary metrics by which schools in England are judged).

2.3.2 Secondary outcome measures

Attendance

Attendance data (% half-days missed due to unauthorised absence) will be sourced from the NPD. Given the uniformly high attendance rates across primary schools, our analyses of this outcome will be restricted to children in the AfA target cohort.
Resilience-related outcomes

Children's self-reported *self-esteem*, *goals and aspirations*, *family connection* and *school connection* will be assessed using subscales of the Student Resilience Survey (Sun & Stewart, 2007). Pupils read a series of statements (e.g. "I can do most things if I try") and respond on a 5-point scale (where 1 = Never and 5 = Always). These outcomes will be captured via a secure online survey platform (World App Key Survey). The domains to be assessed were agreed in discussion between UoM, AfA and EEF as being those that provided the optimal fit to non-academic outcomes noted in the AfA theory of change.

Other outcomes

Academic attainment in maths for Year 5 pupils will also be modelled. Finally, the outcomes for the Year 4 cohort will be assessed and reported as an addendum to the main trial report.

2.4 Power and sample size (PASS) calculations

PASS calculations are based on our primary outcome measure (2.3.1 above). With an ICC of no more than 0.14 (EEF analysis of KS2 data derived from NPD, 24/08/15), a cluster size of approximately 40 (see above), a pre-test-post-test correlation co-efficient of at least 0.7 (based on *current* KS1-KS2 data) and 140 schools, the MDES for an ITT analysis (RQ1) would be 0.12. For the FSM subgroup (RQ2a), the cluster size drops to approximately 12 and the MDES is therefore 0.16. For the AfA subgroup, the cluster size drops to approximately 8 and the MDES is therefore 0.19.

2.5 Statistical analysis plan

We will use children's KS2 reading scores (extracted from the NPD) to address RQ1[4]. An ITT analysis will be conducted for the primary outcome (KS2 reading) using two-level (school, pupil) multilevel-modelling (MLM) to account for the clustered and hierarchical nature of the data. Effect sizes will be reported using Hedge's *g* (Cohen's *d* bias corrected) and accompanied by 95% confidence intervals as per EEF specifications. At the school level, Group (i.e. AfA, usual practice) will be entered as an explanatory variable. At the pupil level, pre-test KS2 literacy reading scores will be entered as an explanatory variable. Following the ITT analysis, sensitivity analyses will be conducted to investigate the addition of other explanatory variables. At the school level, the randomization variables (including %FSM, %SEN and %KS2 Reading Writing Mathematics combined level 4+), and usual practice indicators will be entered (the latter being

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[4] KS2 English total marks for reading only will be used as our primary outcome variable in the main ITT model. This is due to evidence demonstrating that recent changes to assessments have resulted in lower a correlation between KS2 reading and KS2 writing. Additional sensitivity analysis will be conducted in which we will re-run the main ITT with KS2 English reading and writing and also KS2 writing alone. These analyses will follow the same procedure as the ITT, but the different outcome measures will be entered.

included in order to provide a more robust estimate of the achieved relative strength of AfA). At the pupil level SEN and gender (given its established association with our primary trial outcome) will be entered. The analysis will then be repeated for each secondary outcome measure (i.e. the main ITT model and sensitivity analyses will be re-run with each of the secondary outcome measures entered as the explanatory variable).

Subgroup analyses will be performed to answer RQ2. The primary ITT model will be re-run with a subset of the main data using only FSM pupils, and then again with another subset of only AfA target pupils.

For RQ3 we will use data from schools allocated to the intervention arm of the trial. Two-level MLM will be employed again by entering the primary outcome variable (KS2 reading) and accompanying explanatory variables as specified above (i.e. the primary and sensitivity analyses). The only difference will be the removal of the Group variable (if intervention or control). To address RQ3b(i), on-treatment status will be introduced as an school level explanatory variable to investigate the association between on-treatment implementation and improved outcomes. Data will be collected from AfA to ascertain how many treatment schools were awarded a Quality Mark (QM) status by the end of their programme (schools awarded a QM will be coded as on-treatment, and schools that do not achieve a QM will be coded as off-treatment). To address RQ3b(ii), we will follow the above procedure but in addition introduce the sub-group membership indicator (e.g. FSM eligibility) as an explanatory variable at the child level. This will allow us to model a cross-level interaction (on-treatment*sub-group, e.g. if on-treatment, if FSM) to determine whether differential intervention benefits among specified subgroups vary as a function of on-treatment implementation. For RQ3b(iii) we will introduce critical component indicators as explanatory variables at the school level and model outcomes as specified above.

For RQ3c and RQ4 we will employ structural equation modeling (SEM); specifically, multi-level path analysis. For the former, the model will be set to examine context-implementation-outcomes paths; for the latter, the model will be set to examine input-process-outcomes paths.

2.6 Implementation and process evaluation

The IPE design reflects an embedded, multi-phase mixed methods approach. There are four components, specified below.

2.6.1 Intervention Delivery and Evaluation Analysis (IDEA)

We will begin with an Intervention Delivery and Evaluation Analysis (IDEA) workshop[5] with AfA, in which we explore the intervention in depth, in order to:

- Co-construct and agree the Template for Intervention Description and Replication (TIDieR) framework content for AfA
- Interrogate the AfA theory of change
- Examine intervention delivery materials (e.g. manuals)
- Discuss the delivery history of AfA

The information generated through these activities will enable us to:

- Begin to map out the different components of the AfA (including those that are considered 'core' and those that are optional)
- Identify the most salient dimensions of and factors affecting implementation and consider when and how they may be assessed (e.g. how would 'dosage' be interpreted for AfA? What is the (assumed) optimal dosage and why? When and how should this be assessed?)

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[5] We anticipate that this will be in the form of face-to-face meetings at UoM and/or AfA's offices. However, it may also be helpful to visit some of AfA's existing primary schools to see how the intervention principles are applied 'at the chalkface'.

- Consider what evidence may be gathered to empirically validate the AfA theory of change
- Hypothesise which intervention components are critical to the achievement of intended outcomes for AfA
- Generate a defensible definition of 'on treatment' status, including delineation of the data needed to determine this
- Identify the most salient contextual factors that are likely to influence implementation and outcomes of AfA
- Began to map out the most pertinent indicators of 'usual practice' from which AfA needs to be distinguished

2.6.2 Usual practice survey

The above will provide the foundation for our IPE approach, which begins with the development of a usual practice survey, to be administered online on at baseline and follow-up and be completed by a nominated member of staff in each school (e.g. AfA lead, head of KS2). As noted in 2.5 above, data from the survey will be included as school-level co-variates in our various statistical analyses. The usual practice survey will be used to (a) establish the counterfactual (e.g. what happens in the *absence* of AfA), thus strengthening the causal inferences that can be drawn from the outcome analyses, (b) document any change that occurs in response to randomisation to the control arm of the trial (e.g. compensatory rivalry, aka the 'John Henry' effect), and (c) establish the level of programme differentiation in the AfA group (e.g. how distinctive is AfA, amidst what was already in place? What has the intervention displaced?).

2.6.3 Longitudinal implementation case studies

We will also conduct longitudinal case studies of c.7 schools (e.g. 10% of the 70 schools implementing AfA) purposively sampled using a maximum variation approach (e.g. location, needs analysis and target group, school characteristics). The case studies will allow us to examine and document the various intervention processes. As is standard practice in this approach to evaluation, data will be derived from a variety of sources (e.g. AfA coach, school AfA lead, head-teacher, class teachers, pupils, parents) using a variety of methods (e.g. observations, interviews, document analysis of programme materials such as the AfA Needs Analysis and Action Plan, soft measures used for monitoring purposes). These data will be used to answer a range of process-related research objectives, including the identification of core components and target groups, developing understanding of how the programme is adapted to meet the needs of individual schools, examining how each school's action plan is enacted over time (including adaptations made and the reasons for them), exploring the role of contextual influences, and empirical validation of the programme ToC.

In addition to this, we will use the case studies to explore a range of factors affecting implementation at the different domains/levels consistently identified in the literature: preplanning and foundations (e.g. buy-in), implementation support system (e.g. ongoing external support), implementation environment (e.g. time constraints), implementer factors (e.g. experiences, skills and confidence in delivery), and programme characteristics (e.g. flexibility). At least one two-day fieldwork visit per term per school over the two years of the trial will likely be required.

2.6.4 Implementation survey

Using the knowledge generated from our IDEA workshop (2.6.1 above) and the first two terms of our longitudinal implementation case studies (2.6.3 above), we will design a school-level implementation survey to be administered through a secure online portal during the second year of the trial (2017/18) and completed by the school's AfA lead. This survey will be used to (a) document implementation activity across the schools in the intervention arm of the trial, thus enabling us to (b) determine 'on treatment' status for each, (c) assess the relative presence/absence of proposed critical components of AfA, and (d) document hypothesised change mechanisms/processes.

Given the inherent flexibility of AfA, we anticipate that the quantitative strand will need to assess fidelity to key intervention *principles* as opposed to *pre-specified practices*. We anticipate the need to pilot this survey among existing (non-trial) AfA schools to ensure that the instrument is fit for purpose.

2.7 Qualitative data analysis

The IPE strand of the trial will generate a significant qualitative dataset that will be used as the foundation for answering key research questions that require a purely qualitative approach (e.g. RQ1c, RQ2c, RQ3c(i)), in addition to those where a mixed model is appropriate (e.g. RQ3a, RQ3b(iii), RQ4). Data will be analysed in two ways. First, we will produce detailed profiles of each case study school that document their first two years of implementation, paying attention to how individual context and circumstances have influenced progress in each (within case analysis). Second, we will thematically analyse our data corpus using the principles and processes outlined by Braun and Clarke (2006) (e.g. familiarisation, generating initial codes, searching for themes, reviewing themes, defining and naming themes, report production) (cross case analysis).

2.8 Cost data

Cost data will be collected from two sources. First, we will collect basic cost data from AfA on delivery costs. Second, we will collect more detailed cost data from participating schools – in the interests of reducing data burden this will likely be from implementation case study schools only. We will interview staff to estimate the amount of teacher time and other resources that have been committed to AfA over the implementation period. Given the inherent flexibility of the AfA model, we expect some variability from school to school, and as such it is likely that we will produce several exemplar cost models. In order to comply with EEF requirements these will be aggregated so that we may ultimately produce a 'per pupil' cost over three years and the average time spent (in hours) among schools delivering the intervention.

2.9 Ethics and registration

Once the study protocol is agreed by EEF, AfA and the evaluation team, we will develop and submit our ethics application to the University Research Ethics Committee for approval. Any amendments requested will be agreed and incorporated into the final study protocol ahead of registration of the trail with ISRCTN.

In terms of parental/carer consent[6], we will employ the opt-out methodology for the main study cohorts (e.g. those for whom we assess outcomes, as per 2.3.1 and 2.3.2). Standard EEF wording regarding NPD data linkage and archiving will be included in parental/carer information and consent[7] sheets. For pupils involved in focus groups as part of our implementation case studies (2.6.3 above), we will seek opt-in consent[7] from parents/carers.

2.10 Data Protection (section added as an amendment on 04/03/2019)[7]

The project involves collecting data on pupils' attainment and absence (provided by the National Pupil Database; NPD), background details (provided by the schools), and resilience (acquired via online surveys). Pupils completed short surveys at two time periods: September/October 2016 and April/May 2018. Surveys were conducted in schools through a secure online platform and responses were accessed by the University of Manchester. For the purpose of research, these responses will be linked with information about the pupil from the

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[6] There are two different processes relevant to the participant's involvement in the project. One concerns General Data Protection Regulation (GDPR; see section 2.10) and the other concerns research ethics. From a GDPR perspective, the legal basis for processing the data is not consent but public interest. We do however seek consent to participate from the pupils and their parents to fulfil our research ethics requirements. The requirements of ethics consent are not the same as the GDPR. They cover a wider remit, including, for example, protecting research participants from harm.

[7] This section has been added as an amendment to the protocol on 04/03/2019 to provide information on how we comply with recent changes in GDPR and DPA2018. Parents/carers were also provided with a GDPR notice during the project in May/June 2018 outlining what will happen to their child's data/information and what their rights are in relation to the data, in accordance with the recent changes in GDPR and DPA2018.

NPD and shared with the Department for Education, the Education Endowment Foundation (EEF), FFT Education (EEF's data processor for the archive) and, in an anonymised form, with the Office for National Statistics and potentially other research teams. Further matching to NPD data may take place during subsequent research. Data will be treated with the strictest confidence using pseudo anonymised information in line with General Data Protection Regulation (GDPR).

At the start of the project (September/October 2016) parents/carers were provided with a privacy notice (participant information sheet; PIS) outlining what will happen to the data/information of their child and what their rights are in relation to this data. At a later date during this ongoing project (May/June 2018) an amended privacy notice was provided to each parent/carer outlining what will happen to their child's data/information and what their rights are in relation to the data. This amended document was issued to provide further information that complies with recent changes in GDPR and DPA2018. These forms also encourage parents/carers to visit the following ICO websites (https://ico.org.uk/for-organisations/data-protection-reform/overview-of-the-gdpr/ and https://ico.org.uk/for-the-public/is-my-information-being-handled-correctly/).

During the evaluation, the organisation in control of personal data collected for this research is the University of Manchester. After the research has completed, Education Endowment Foundation (EEF) is the data controller for the Fischer Family Trust (FFT) Education archive. The University of Manchester is also responsible for collecting and processing the data from this project. Identifiable information will not be transferred outside the EU and appropriate measures will be made to ensure it remains secure at all times.

Pseudo anonymised information, where individuals are not readily identifiable, will be held during the 4-year period that the research project is active, after which it will be edited to ensure individuals in the data set are completely unidentifiable. This anonymous information may then be used for research for another 5 years. After this, the information and data will be securely destroyed by the University of Manchester. EEF has their own data retention policy, which can be accessed here: https://educationendowmentfoundation.org.uk/projects-and-evaluation/evaluating-projects/evaluator-resources/data-protection/.

2.10.1 The right of the participants in relation to their data

With regards to the rights of the participants, parents/carers were informed that the GDPR is designed to protect and support the following:

- The right to be informed: Your child's data is being processed by the project research team
- The right of access: You have already been provided with the Participant Information Sheet which explains what data we are collecting and what we are doing with it. The data will be used to produce a research report. The information sheet is also available on the website www.afatrial.info/documents
- The right to correct data: The right to correct incorrect records. All personal information has been collected from the National Pupil Database held by the Department for Education. This information is constructed from records held in school and if you want to change this data then you should contact your child's school. We will be analysing anonymised data.
- The right to be forgotten: The right to request that data is removed/deleted. If you want to do this, please contact the research team.
- The right to restrict processing: The right to request that data be held but not processed unless necessary. We will only process the data to answer our research questions. This is on the project information sheet, which is available on the website www.afatrial.info/documents.
- The right to data portability: The right to a copy of your data in a useable format. Once the data has been anonymised we are unable to retrieve information for a specific child.
- The right to object: You may object to your data being processed. You are free to withdraw your child from the research project up to the point at which the analysis starts.

2.10.2 The legal basis

The type of data that will be used in this evaluation project includes pupils' background information (e.g. gender, SEN status, FSM eligibility; collected from schools), survey data on resilience related outcomes (e.g. self-esteem and aspirations), attainment data (i.e. KS1 and KS2 literacy and maths scores; obtained via NPD), and attendance data (obtained via NPD). The legal basis for processing personal data for the research project is public interest (Article 6 (1)(e) and Article 9(2)(j) of the General Data Protection Regulation). This means that personal data can be processed where necessary for the performance of a task carried out in the public interest. It is in the public interest to raise achievement, access, and aspirations of all children, in particular of those children facing socio-economic disadvantage. This project is in the public interest because it will help determine whether the AfA programme is successful in achieving this goal by evaluating whether it can improve the attainment and wider outcomes of the lowest achieving 20% of pupils. This research will inform future educational provision.

The relevant articles are:
- GDPR Article 6(1)(e): Processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller;
- GDPR Article 9(2)(j): Processing is necessary for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes in accordance with Article 89(1) based on Union or Member State law which shall be proportionate to the aim pursued, respect the essence of the right to data protection and provide for suitable and specific measures to safeguard the fundamental rights and the interests of the data subject.

3   Other information

3.1 Personnel and roles

Evaluation team

Professor Neil Humphrey and Dr. Garry Squires (Joint PIs) will lead the trial and ensure it is delivered to time and budget.

Dr. Ann Lendrum (Co-I) will lead the implementation and process evaluation strand of the trial.

Dr. Michael Wigelsworth will lead the outcome assessment strand of the trial.

Dr. Kirstin Kerr (Co-I) will provide advice and support regarding the evaluation of the AfA theory of change.

A research associate (Dr Sophina Choudry/ Dr Elizabeth Byrne) will manage the trial on a day-to-day basis and lead on data generation and analysis tasks. The appointed research associate will draw upon sessional research assistant support during busy periods of the project.

Mr. Lawrence Wo will provide technical support and assistance in the trial (e.g. development and maintenance of the online survey platform).

Delivery team

Lisa Knowles (Senior Programmes Manager) is the key contact as Project Manager for the EEF Trial. She will have overall responsibility for leading delivery. Sonia Blandford (CEO) and Ed Hogan (CFO) will support Lisa

Garath Jackson (Regional Lead, North) will be prime field contact. Garath will be supported by Karen Iles (National Delivery Director) who leads the National Delivery Team for all AfA work

Caroline Styles (Marketing Manager) will lead the recruitment of schools to the trial

3.2 Risks

Risk	Likelihood	Impact	Mitigation
Failure to recruit required number of schools	Medium	High	- Widen recruitment region as required - UoM to support AfA in recruitment process
Failure to recruit research associate by projected start date	Low	High	- Draw on existing RA pool to backfill until position is filled - Letter of intent provided by EEF in order to facilitate timely post approval at UoM
Delay/failure to obtain relevant pupil cohort data from NPD	Medium/High	High	- Schools to provide cohort data as part of recruitment process
Post-randomisation attrition	Medium	Medium-High (depending on rates and whether attrition is differential)	- Comparison schools provided financial incentive - Data burden minimised throughout trial - Expectations set out clearly in memorandum of agreement

3.2 Project timescale

See Gantt chart overleaf.

3.3 Budget

Evaluation costs have been provided in a separate document using EEF's budget pro forma.

Gantt Chart

Activities	Lead-in 03/16-05/16	1 06/16	2	3	4	5	6	7	8 2017	9	10	11	12	13	14	15	16	17	18	19	20 2018	21	22	23	24	25	26	27	28	29	30	31	32 2019	33	34	35	36	37	38	39	40	41	42	43	44 2020	45	46
Project management																																															
Set-up meetings Protocol approval	■																																														
RA recruitment and appointment		■																																													
Evaluation contract issued	■																																														
UoM ethical approval		■	■																																												
Develop evaluation website and update	■	■	■																																												
Randomisation					■																																										
NPD request																														■	■														■		
EEF report writing							■		■						■						■					■		■				■	■				■								■		
Measure development and instrumentation																																															
Instrument selection (secondary outcome measures)	■	■																																													
Development and piloting of usual practice survey (non trial AfA schools)		■	■	■	■																																										
Development and piloting of implementation survey															■	■	■	■	■	■																											
Develop qualitative data generation tools (e.g. interview schedules)		■	■									■	■		■	■	■		■	■					■	■					■	■															
Assessment of outcomes																																															
Primary outcome measures (Y4 cohort)	KS1 pre-test																																				KS2 post-test										
Secondary outcome measures (Y4 cohort)	% attend 14/15				Resi pre-test																					Resi post-test		% attend 17/18																			
Primary outcome measures (Y5 cohort)	KS1 pre-test																								KS2 post-test																						
Secondary outcome measures (Y5 cohort)	% attend 14/15				Resi pre-test																					Resi post-test		% attend 17/18																			
Data cleaning and analysis					■	■	■																			■	■	■													■	■	■	■	■	■	■
Assessment of implementation and process																																															
IDEA workshop	■	■																																													
Usual practice survey					■	■																				■	■																				
Implementation survey																										■	■																				
Case study school recruitment and fieldwork									■	■	■				■	■			■	■			■	■		■	■																				
Data cleaning and analysis		■	■						■	■			■	■			■	■			■	■				■	■						■	■	■	■				■	■	■	■	■	■	■
Intervention timeline																																															
School recruitment (k=160)	■	■	■																																												
Initial training for intervention schools					■																																										
Implementation in intervention schools					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■															

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Achievement for All timeline (June 2018 onwards)

Dates	Activity	Staff responsible/ leading
Completed 27th July, 2018	IPE - qualitative data collection	Sophina Choudry
Completed 27th July, 2018	RCT – survey data collection	Sophina Choudry
Completed 3rd Aug., 2018	RCT - Data tidy and matching (resilience outcome)	Sophina Choudry
Completed 30 Aug 2018	Applications for new RA, interviews and offer of appointment from end of Nov 18	Garry Squires and Neil Humphrey
7th September, 2018	RCT - Factor analysis – UPS report	Sophina Choudry
7th September, 2018	IPE - Case study analysis - narrative analysis - 5	Sophina Choudry
7th September, 2018	RCT - missing data analysis (resilience outcome)	Sophina Choudry
7th September, 2018	RCT - Secondary quantitative analysis (resilience outcome)	Sophina Choudry
7th September, 2018	EEF report write up	Sophina Choudry
7th September, 2018	IPE - Case study write up – 5 cases	Sophina Choudry
28th September, 2018	IPE - Case study analysis and write up – 3 cases (3 days)	Additional RA support (Ola Demkowicz)
By January, 2019	IPE – data collection – ask AfA 3As to share school QM/QL status and final status of engagement for each school in trial. Ask AfA 3As to send us the data on bubble access	Elizabeth Byrne
By February, 2019	IPE - thematic analysis	Additional RA support (Ola Demkowicz)
By February, 2019	ONS Accreditation/Access to NPD	Elizabeth Byrne
By February, 2019	NPD Application 1	Elizabeth Byrne
By February, 2019	Review of analysis/reports completed so far	Elizabeth Byrne
By February, 2019	Create bespoke school reports and send to trial schools. See if any of the case study information is useful to add to the case study schools in the report	Elizabeth Byrne
Mar – May, 2019	RCT – missing data analysis for NPD data (primary and secondary outcomes except resilience)	Elizabeth Byrne
Mar – May, 2019	RCT – Primary ITT and secondary outcome analysis (additional models) except for resilience	Elizabeth Byrne
By May, 2019	IPE – Multilevel modelling relating to RQ3 (implementation schools only)	Elizabeth Byrne
By May, 2019	IPE - implementation survey analysis/structural equation modelling	Elizabeth Byrne
Mar – Jun, 2019	Complete first draft of the EEF report (Y5)	Elizabeth Byrne, Garry Squires, and Neil Humphrey

By Sep 19	Revisions of report following EEF processes Update RCT trial data	Elizabeth Byrne, Garry Squires, and Neil Humphrey
Oct 2019	Archiving of Y5 cohort data and case school data and IPE data	Elizabeth Byrne
By Nov, 2019	NPD application 2 (Y4cohort now completed Y6)	Elizabeth Byrne
Jan-Feb, 2020	RCT – missing data analysis for NPD data (primary and secondary outcomes except resilience) RCT – Primary ITT and secondary outcome analysis	Elizabeth Byrne
By March, 2020	EEF report writing – appendix (Y4) Update RCT trial data Prepare data for archiving Notify UREC that all data has been collected	Elizabeth Byrne