

## Protocol for evaluation of 'Future Foundation Summer Programmes' 2013

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### Introduction

The project to be evaluated is a randomised controlled trial of a 4-week summer school programme from 29<sup>th</sup> July to 23<sup>rd</sup> August 2013 on three sites. The programme is loosely based on the US BELL Summer School and BELL Accelerated Learning programmes, and is more closely associated with a pilot study of a programme conducted by Future Foundation in the UK in 2012. All three have evaluated their work as a success, and there are indeed many indicators of success in terms of satisfaction and attitudinal measures. However, none has yet convincingly demonstrated a beneficial impact on student learning for the year 5 and 6 age group, as assessed by formal testing. There is near equipoise in relation to the primary outcome of attainment measures. It is therefore appropriate to conduct a definitive test order to determine whether there is merit in such programmes.

### Impact evaluation

#### *Design*

The outline for the intervention proposes a relatively simple individually randomised control trial of two groups, without placebo or waiting list. One group will receive the treatment over summer 2013. The pre tests will consist of standard SATs in summer 2013. The post tests will be administered in groups in schools where the pupils attend after summer 2013. Anything that can be done to reduce demoralisation and consequent dropout should be done. This involves not revealing the groups until after the pre-testing, use of small incentives for all pupils to complete the post-test, use of refundable deposit for applicants, and neutral administration of the post-test.

#### *Sample size*

The project proposes an individual-level randomisation of 1,000 year 5 and 6 pupils, with 50% from each year group. In reality, the total number and exact proportion in each year will depend upon a number of factors, including demand. The programme will cater for 500 pupils. The project team will recruit up to 1,000 pupils from families agreeing to be randomised either to summer school 2013, or to a comparison group providing only pre- and post-test scores in 2013, and consenting to be part of the evaluation as an integral part of consideration for the programme. We will use a pseudo-random number generator to select the treatment or other group for each student, after the pre-test (summer SATs) for both groups. All schools, students and families will agree to be part of the evaluation as an integral part of being considered for the programme.

The pilot for this intervention did not produce a consistent or substantial 'effect' size benefitting students who attended the summer school. Nor have studies in the US shown clear advantages in terms of attainment for the age group involved here. We therefore present our effect size calculations the other way around to normal. Using Lehr's approximation for an 80% chance of detecting a presumed effect size with 5% alpha, and a sample size of 500 cases per trial arm, it

should be possible to work with an effect size as low as just under 0.18. This means that the trial should be able to detect any effect if it is of practical significance. It has sufficient power in the circumstances, even if there is some compromise in the sample size. However, these estimates are based on full response, no dropout and no missing data.

#### *Tests*

The pre-test scores for year 6 will be their summer 2013 SATs fine point scores for reading, writing and maths. The pre-test scores for year 5 will be their summer 2013 SATs fine point scores for reading, writing and maths, based on taking papers from 2006. Where schools were not already planning to conduct such a practice test with year 5, the tests will be purchased for them. The pre-test will be administered by the pupils' initial schools. Because this will take place before randomisation, the process will be 'blind' as to treatment group. To ensure this blindness, the timing requires teachers to mark the relevant SATs immediately (by end of May) or use external markers. Schools will send to the evaluators an Excel spreadsheet of the raw score results for reading, writing and maths for each pupil linked to their UPN. The format should be a file named after the project, school and year group (e.g. FF Summer School St Mary's Year 5), with four columns. First column to be the UPN, next three numeric columns to be the raw fine-point SAT scores in the order reading, writing, maths.

The post-test scores for both groups will be the GL Progress in English Test (version 10 or 11 depending on year group), and GL Progress in Mathematics Test (10 or 11), administered in groups in feeder primary schools for year 6, or secondary schools for year 7. All tests will be in written form, with completed scripts returned to GL for marking, and conducted in the second week of September. The key outcome for each post-test will be the SAS. These tests will be overseen by members of the evaluation team and their temporary employees (such as doctoral researchers) who will not know which group each pupil is in. This is to help ensure that the process is 'blind' as to treatment group. Each school must deliver the tests neutrally without regard to the treatment group of each pupil, and without the pupils being made aware of any link between the testing and the summer programme. This is to try and help reduce demoralisation. All pupils will be offered a small incentive for completion of the test. At post-test, pupils may also be asked to respond to up to three brief attitudinal questions. All data to be linked to UPN.

Subsequently, and after the initial report, a follow up analysis will use the summer 2014 SATs for the original year 5 group to look at any diminution of the effect size over time.

#### *Other data*

The schools and intervention team will provide the evaluators with the UPNs (as per NPD) of all pupils involved in the study (intervention and control). This can be used to find mapped pupil background characteristics such as FSM, sex and ethnicity within the NPD.

#### *Analysis*

The outcome measure will be the difference in the gain score between the arms of the trial, expressed as an effect size, where the gain is the average difference between individual scores on pre- and post-test. The pre-test scores will be standardised before analysis to match the range of the post-test scores. The primary measure (and success/failure criterion) will be the effect size for relative gains in reading. Secondary measures will be the equivalent effect sizes for writing and maths. Supplementary analyses will include any attitudinal measures (post-test only), and some sub-groups such as each year group individually, and FSM (or pupil premium) pupils only.

#### Process evaluation

This intervention has already been piloted, and is developed from work already implemented in the US. Therefore, the fieldwork forming the light-touch process evaluation has the aim of providing some further formative evidence on all aspects of the intervention from the selection and retention of schools, through the training of teachers to evaluating the outcomes. This can be used to help assess fidelity to treatment, and the perceptions of participants including any resentment or resistance. However, the main purposes will be to consider the fidelity and quality of delivery of the treatment, and to advise on issues for any future scaling up if the results permit.

This will necessitate the generation of some additional data from observation and interviews with staff and families, focus groups of pupils, plus observation of training, delivery and testing. These will all be as simple and integrated as possible.

Timeline

April 2013-	Recruitment of sites, staff, schools and potential pupil participants Further refinement of intervention and curriculum
May 2013	Observation of staff training Pre-tests delivered by schools <del>UPNs and results sent to evaluators</del>
June 2013	Randomisation of potential pupil participants to two groups Notification to pupils of acceptance onto programme <del>UPNs and results sent to evaluators</del>
July 2013-	Observation of summer school Interviews with all parties
September 2013-	Administration of post-tests in all schools Link scores to pupil background data Analyse outcome data Synthesise with process evaluation data
October 2013-	Complete final report for EEF
July 2014-	Calculate standardised effect sizes again, for the original year 5 pupils, using summer 2014 KS2 SATs as the new post-test
October 2014-	Complete supplementary report for EEF

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