Powerful learning Conversations

NIESR
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Proposed scale	
Age range	**Year 9**
Number of pupils	**~3,680**
Number of schools	**~23**
Area	**South West**

BACKGROUND

Significance

The Powerful Learning Conversation aims to develop and trial a training programme for Year 9 English and Maths teachers, with the aim of improving feedback practices by applying feedback techniques used in sport. The Powerful Learning Conversation is based on the idea that the feedback techniques used in sport are rapid and immediate and that children are less likely to respond negatively to criticism due to the way the feedback is delivered.

The importance of effective feedback is clear from the Teaching and Learning Toolkit, with it being assessed as having a very high impact for a low cost. The challenge is in supporting teachers to adopt good feedback practices in their classroom. The idea, or indeed feasibility, of applying feedback techniques used in sport has however never been tested.

The evaluation is intended to provide robust evidence on the feasibility of applying the feedback practices from sport to other subjects and how easy it is for teachers to implement the strategies within their lessons. This approach has never been tested before; therefore a small scale pilot to assess feasibility and define the intervention is appropriate.

The inclusion of randomisation will enable the process to be tested, and also hopefully enable us to get an initial estimate of the potential impact on attainment which could be used to determine the sample for a larger trial.

A cluster randomisation approach was adopted since individual-level randomisation was felt to be both impractical, likely to cause contamination and to raise ethical concerns. Outcomes are at the level of individual pupils.

Intervention

Details of the intervention being tested

The training programme adopts a cascade model: expert teachers from each school (including at least one teacher of physical education) will be trained and they will then return to school and provide training to English and Maths teachers. These teachers will then implement what they have learnt with their students, as well as training the students in how to successfully respond to feedback.

RESEARCH PLAN

Research questions

The primary questions the evaluation was designed to answer are:

1. is applying the feedback practices from sport to other subjects feasible?
2. what is the effect on children's attainment and other outcomes of training teachers to improve feedback practices?

Design

Randomisation takes place at the school level.

- **School level:** Schools participating in the trial are randomly assigned to either the intervention group or a control group. Teachers in intervention schools receive the full Powerful Learning Conversation Training. Control schools will receive a Living for Sport visit. training to embed learning to learn techniques in their work.

Randomisation will be carried out within 23 schools in the South West using “block randomisation techniques ensuring balance between the treatment and control groups, controlling for prior attainment and FSM .

The primary purpose of the feasibility pilot is formative so there will be in depth process in the treatment schools (see below).

Participants

The study comprises secondary schools in the South West. Within each school, the trial focuses on year 9 pupils. Within schools that are randomly selected to be intervention schools, teachers receive the full cascade intervention, with the aim of influencing teachers to adopt feedback practices used in sports in their classroom.

Participation in the course is voluntary.

Outcome Measures

The primary outcome is the Progress in English (GL assessment) Writing test, while the secondary outcome is the Access Maths Test (Hodder), Math test. Both tests will be administered at the end of the academic year when the intervention takes place. The same test will be administered to pupils in control classes. .

Sample size calculations

The aim of the project is to recruit 23 schools to the study. A minimum detectable effect of 0.40 has been estimated, proportion of schools assigned to treatment 0.50, 160 children per cluster, 0.05 significance level, 0.8 power and a 0.25 intra-cluster correlation. This is a conservative ICC and the calculation does not factor in stratification, which would increase the power.

The primary purpose of this evaluation is to pilot the intervention for the first time, so it is appropriate that the evaluation is under powered.

Analysis plan

The analysis will be carried out using multilevel regression models to reflect the clustered nature of randomisation. The two types of schools included in the trial are:

a) intervention schools that receive the full Powerful Learning Conversation training
b) control schools that only receive a Living for Sport visit

The model will be specified in order to allow the following types of comparison:
vs b) will give the combined impact of teacher training.

We will consider a number of subgroups defined by pupil characteristics. These include:

- children receiving free school meals (FSM) compared to non-FSM children;
- ethnic minority children compared to white children
- children with low attainment scores on the KS2 compared with children with higher attainment scores on KS2

Process evaluation methods

As a feasibility pilot, the purpose of the process evaluation will be very largely formative, to assess the design and approach of the PLC programme. The emphasis of the evaluation will be on establishing how easy it is for teachers to implement PLC to deliver teaching and learning in their subject. It will also focus on the appeal of the approach to subject teachers. It will also assess programme materials, particularly those used in training teachers at all levels of the training cascade.

We will involve a sample of the test group schools in the process evaluation, in terms of our visits and interviews. However we will also collect information on existing practice, and on changes in practice resulting from PLC through a survey of all twenty schools.

We are proposing the following components to the process evaluation

- Attendance at training sessions
- Evaluation of training through survey of all attendees
- Visits to schools to observe use of PLC
- Interviews with teachers using PLC and with the head of teaching and learning
- Survey of usual practice and expectations of the project

PERSONNEL

The Youth Sport Trust is responsible for delivering the intervention, while NIESR is carrying out the evaluation. Roles and responsibilities are as follows:

Design of the trial

- sample size calculations - NIESR
- refinement of randomisation approach - NIESR

Delivery of the intervention

- recruitment of schools - Youth Sport Trusts with involvement of NIESR
- delivery of teacher training - Youth sport Trust

Measurement of outcomes and construction of database

- administration of Progress in English and Access Maths Test tests – NIESR
- incorporation of NPD – NIESR

Impact analysis - NIESR

Qualitative analysis - NIESR

TIMELINE

- Developing of training and online materials to complete by Spring 2014 (Youth Sport Trust)
- Recruitment of schools to be completed by mid April 2014 (Youth Sport Trust, with involvement of NIESR and University of Exeter)
- Randomisation in April/May 2014
- Process evaluation to be carried out in spring 2014
- Teacher training in treatment schools to b e carried out in July 2014 (Youth Sport Trust)
- Progress in English (GL assessment) and Access Maths Test (Hodder) tests to be carried between May and -July 2015 (NIESR)
- Final report on impact analysis by end-October 2015 (NIESR)

RISKS

Data protection statement

In order to undertake contracts for a variety of government departments, agencies and charitable trusts, NIESR has established systems which comply with the stringent requirements of these organisations. This compliance includes the use of encryption, secure passwords, lockable paper files and secure entry to the office building (which does not have any public access). Computing facilities include secure data transfer through a VPN system and the use of stand-alone computers for data use. Staff are made aware of the importance of ensuring that data security is not compromised.

Some of the key risks are listed below:

- There is a risk that schools will not take part in the programme. NIESR will work closely with Youth Sports Trust to convey the importance of the evaluation to schools participating in the programme and the value to them of taking part;
- There is a risk that the sample will be biased because of a 'bad draw'. This risk increases when randomising clusters rather than individuals. This is because the tendency towards statistical equivalence of treatment and control groups grows with the number of units randomised. In this evaluation, 23 schools will be randomised which is a small enough number to carry the risk of the treatment and control groups differing in important ways. One solution to this is to draw blocks similar of schools within which randomisation takes place.
- The project may have different impacts between schools because of variations in implementation. For example, expert teachers may vary in the extent to which they spread the PLC approach further within their schools. This will be explored in the process evaluation. The process evaluation will aim to establish any differences between experience and expertise of participating teachers which might explain overall effects or differences in outcomes between schools.
- Staff absence is a general risk to projects such as this. The evaluation team will substitute for each other during any short-term absence. In the event of longer periods of unplanned absence or departure, we will recruit replacements. We have a number of experts in evaluation and education who could substitute for members of the team, should this be necessary.
- There is a risk that the findings will have little impact, particularly if the statistical effects are found to be weak. Our reporting will be aimed at ensuring maximum impact of findings through summaries and guidance for EEF schools on how to implement the PLC programme effectively. Reporting will focus on best practice and implications for policy and practice. Our

wider dissemination and expertise in dissemination will ensure that findings are covered in appropriate press and other media.