

Can adventure learning improve students' skills, behaviour and academic results?

Submission date 09/08/2019	Recruitment status No longer recruiting	☐ Prospectively registered ☒ Protocol
Registration date 20/08/2019	Overall study status Completed	☒ Statistical analysis plan ☒ Results
Last Edited 09/04/2025	Condition category Other	☐ Individual participant data

Plain English summary of protocol

Background and study aims

Adventure learning ('the Programme') is a year 9 intervention which will research the elements that are most important in the development of non-cognitive and academic outcomes (for example, intense, week-long experience; challenging adventure; engagement with nature) and how the outcomes associated with these programmes (for example, increased; self-efficacy, self-regulation and resilience; improved relationships in school; behaviour and attitudes in the classroom) may link to improved attainment. The Programme will use two established organisations in this field: The Outward Bound Trust (OBT) and Commando Joe's (CJ's).

The aim of this study is to evaluate the impact of adventure learning in natural, residential and school settings. This randomised controlled trial (RCT) of adventure learning has been funded by the EEF and will focus on the development of non-cognition, essential life skills and attainment. The evaluation is not an assessment of individual pupils or schools but is about understanding how effective the programme is overall.

Who can participate?

This research is for secondary schools in England with a minimum of 20% of pupils eligible for pupil premium.

At recruitment pupils are current Year 8 pupils who are achieving below their expected levels of progress because of a lack of engagement with education and/or lack of character skills to support learning.

At least 50% of the pupils selected should be recognised as disadvantaged.

What does the study involve?

Schools are randomised to one of three groups. Adventure Learning with Outward Bound, in this group, pupils will combine challenging, adventurous activities such as canoeing, hiking and wild camping, in an intensive five-day residential course delivered in one of five locations across Wales, England and Scotland. Instruction will be delivered by trained outdoor learning facilitators in collaboration with accompanying staff from the pupils' school.

Learning strategies such as growth mindset theory, goal-setting and feedback will be used by instructors during the course to enhance learning.

Commando Joes, pupils in the Commando Joe's group will similarly combine challenging physical activity with the use of metacognitive skills and instructor-facilitated reflection sessions to try to improve non-cognitive outcomes and attainment. Commando Joe's trained instructors are military veterans, and this programme will be delivered over five consecutive days on the school site.

Control group, no activities planned. ALL pupils will also be expected to fill in a survey at three-time points, to assess their non-cognitive skills and undertake a maths test. Form tutors and leads from participating schools will also be asked to fill in questionnaires that will give detail on the context of their school and their perceptions of students behaviour. A sample of schools will also be asked to be 'case-studies'.

What are the possible benefits and risks of participating?

All participating schools have the opportunity to be part of a high-quality research trial, working with experienced researchers from Sheffield Hallam University's Institute of Education (SIOE) that will provide insight into if, how and why adventure learning leads to improvements in non-cognitive outcomes and attainment. In addition, intervention schools will benefit from heavily subsidised rates to enable 24 pupils to access adventure learning delivered residentially by Outward Bound or on school grounds by Commando Joe's. Control schools will receive a financial payment on completion of different elements of the study. The expectation is that after covering assessment costs, this money is put towards providing activities to enrich educational experiences, with specific focus on the 24 pupils identified to take part in this research. Therefore, pupils will get to take part in adventure learning activities (OB or CJ) or (if in the control group) benefit from enriched educational experiences. One risk is that pupils will miss a week of timetabled lessons if they are in the Outward Bound or Commando Joe schools. A further risk is that pupils will be asked to participate in additional tasks as part of this evaluation-in addition to their normal school timetable. The risks have been minimised by making sure any evaluative tasks, such as questionnaires and tests as short as possible and only used if essential to the study.

Where is the study run from?

The study is taking place across 97 schools in the UK, with the Outward Bound 5 day interventions taking place in either; Aberdovey, Ulswater, Howtown, Loch Eil or Ogwen. The commando Joe interventions take part at the school. Each school, regardless of the trial arm they are randomly allocated to will be asked to fill in the primary and secondary outcome measures. This will take place in the school.

When is the study starting and how long is it expected to run for?

The interventions start from September 2019 and run until January 2020.

Who is funding the study?

This study is funded by the Education Endowment Foundation (EEF).

Who is the main contact?

Joint project managers Sarah Reaney-Wood (s.j.reaney@shu.ac.uk) and Ben Willis (b.willis@shu.ac.uk).

Contact information

Type(s)

Public

Contact name

Mrs Sarah Reaney-Wood

ORCID ID

<https://orcid.org/0000-0002-5049-1261>

Contact details

Centre for Development and Research in Education, Arundel Building, Sheffield Hallam University, City Campus, Howard Street, Sheffield, S1 1WB

Sheffield

United Kingdom

S1 1WB

0114 2253634

s.j.reaney@shu.ac.uk

Type(s)

Public

Contact name

Dr Benjamin Willis

Contact details

Centre for Development and Research in Education

Arundel Building

Sheffield Hallam University

City Campus

Howard Street

Sheffield

United Kingdom

S1 1WB

0114 225 6059

B.Willis@shu.ac.uk

Additional identifiers

Study information

Scientific Title

The impact of adventure learning in year nine pupils on character development and academic attainment.

Acronym

N/A

Study objectives

1. Does an Adventure Learning intervention lead to changes in non-cognitive skills?
2. Does an Adventure learning intervention lead to changes in pupil behaviour?

3. Does an Adventure Learning programme lead to changes in attainment?

Various components are predicted to contribute to improvements in pupil self-regulation. These components are:

- 3.1. Group leader as role-model.
- 3.2. Physical challenge.
- 3.3. Experience of agency/autonomy.
- 3.4. Teamwork and building relationships.
- 3.5. Reflection on learning.
- 3.6. Being in nature (OB only).
- 3.7. Residential; being away from home (OB only).

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved 28/11/2018, Sheffield Hallam Universities ethics committee (The University Research Ethics Committee (SHUREC), Sheffield Hallam University, Howard Street, Sheffield, S1 1WB; ethicssupport@shu.ac.uk), ref: ER10067695.

Primary study design

Interventional

Study design

Longitudinal, 3-arm randomised control trial

Study type(s)

Other

Health condition(s) or problem(s) studied

Self-regulation of learning

Interventions

Schools are randomly assigned to one of three trial arms (using simple randomisation without any form of stratification); Outward Bound Intervention, Commando Joe's Intervention or the control group. The study is taking place in 97 schools.

Outward Bound (OB) trial arm: Pupils go on a 5 day residential trip away from school. They undertake a series of outdoor activities, such as; wild camping, sailing.

Commando Joes (CJ's) trial arm: This is a 5-day in school adventure learning programme. Pupils will undertake activities on each of the 5 days that are aimed at improving their non-cognitive skills.

Intervention Type

Behavioural

Primary outcome(s)

Self-regulation of learning is measured using the self-regulation of learning scale (Toering et al, 2012) at baseline (prior to randomisation), 2 weeks post-intervention and approximately 1 year.

Key secondary outcome(s)

1. Mathematics attainment after 1 year is measured using the GL Progress Test in Maths.
2. General attainment after 2 years is measured using the GCSE attainment 8 score.
3. Student engagement is measured using the Student Engagement Instrument (SEI) at baseline (prior to randomisation), 2 weeks post-intervention and approximately 1 year.
4. Pupil behaviour in school is measured using the Strength and Difficulties Questionnaire (SDQ; completed by pupil's form tutor) at baseline (prior to randomisation), 2 weeks post-intervention and approximately 1 year.

Completion date

01/10/2022

Eligibility

Key inclusion criteria

Schools:

1. Secondary schools in England.
2. A minimum of 20% of pupils eligible for pupil premium.
3. Able to identify 24 current Year 8 pupils who are achieving below their expected levels of progress because of a lack of engagement with education and/or lack of character skills to support learning.

Pupils:

1. At least 50% should be recognised as disadvantaged, either in receipt of pupil premium or through economic, social or environmental issues known to the school.
2. The programme is especially suitable for pupils with the greatest scope for improvement based on their current attainment levels versus their predicted actual attainment ability, regardless of their starting point.

Participant type(s)

Other

Healthy volunteers allowed

No

Age group

Child

Sex

All

Key exclusion criteria

Schools:

A pupil premium of less than 20%.

Pupils:

Younger or older than Y8 at time of recruitment (Y9 at start of intervention activity).

Date of first enrolment

30/10/2018

Date of final enrolment

15/05/2019

Locations

Countries of recruitment

United Kingdom

Study participating centre

97 schools in the UK

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United Kingdom

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Sponsor information

Organisation

Education Endowment Foundation

ROR

<https://ror.org/03bhd6288>

Funder(s)

Funder type

Charity

Funder Name

Education Endowment Foundation

Alternative Name(s)

EducEndowFoundn, The Education Endowment Foundation (EEF), Education Endowment Foundation | London, EEF

Funding Body Type

Private sector organisation

Funding Body Subtype

Trusts, charities, foundations (both public and private)

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

Data will be transferred to the EEF data archive, which is only accessible by researchers commissioned by EEF to conduct meta-analysis of EEF data. Participants are informed of archiving requirements at the start of the evaluation. Anonymised data may be shared with other research teams and potentially the UK Data Archive. We will not use pupil/staff names or school names in any report arising from the research.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Funder report results		31/05/2023	09/04/2025	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Protocol (other)	v 1.3	30/06/2021	09/04/2025	No	No
Statistical Analysis Plan	V 1.0	22/11/2019	09/04/2025	No	No