



Society for Educational Studies

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Title: **Outdoor adventure activities and their impact on the educational attainment, confidence and aspirations of underachieving children from lower socio-economic groups: a pilot study**

Outdoor adventure activities and their impact on the educational attainment, confidence and aspirations of underachieving children from lower socio-economic groups: a pilot study

Main aims and objectives: The key aim and objective of this research is to explore the impact of outdoor residential experiences on the educational attainment and aspirations of a group of students from poorer socio economic backgrounds, identified by their school as underachieving. In particular it seeks to address significant gaps in our understanding of the value of outdoor residential experiences by exploring the ways that outdoor activities may impact or not on educational aspirations and attainment. By considering the impact of outdoor residential experiences the research aims to offer an important contribution to knowledge in this under explored area, as well as the field of educational inclusion more broadly. By extending our understanding about the ways young people can be encouraged to engage with education, this research will also contribute in important ways to debate on how to enhance the learning outcomes of underachieving young people from lower socio-economic groups. Given the limited success of governmental policy in tackling the persisting underachievement of less socially advantaged children this is an important contribution. In addition, the research will have important consequences for practice in schools in terms of considerations in relation to Pupil Premium spending, but also in terms of thinking about education and learning more broadly. By providing a robust evidence base, the value of outdoor residential experiences – and their impact – can be more readily evaluated by both teachers and those with responsibility for establishing where best to invest funding for societies most disadvantaged young people, as well as to debate on the value of the classroom as they primary site of learning.

Research Question: *How do outdoor adventure activities impact on the educational attainment and aspirations of underachieving children from lower socio-economic groups?*

Research design: The underlying theoretical basis of this study is the assumption that whilst structure may predict student outcomes as cultural reproduction theory suggests, individuals are also reflective and rational and are therefore able to redefine and renegotiate predicted life course outcomes. It is also held that the self-efficacy beliefs of individuals are amenable to change. Thus, as the most important aspect of this project is to track change, we adopt a mixed methods, longitudinal, intervention, case study approach. This includes on the one hand quantitative measures of learners' attainment. On the other hand, as the research is interested in meaning making and the role that experiences and reflective understandings have on outcomes, exploring these through the eyes of the student is also important.

As the most important aspect of this project is to track change we adopted a mixed methods, longitudinal, intervention, case study approach. This approach is selected as it allows us to optimise the depth of data collected, an important consideration in enabling us to meet the aims of the research.

The sample: The project focuses on two groups of year 9 students (age 14 years) as they move into year 10. Year 9 students were selected as this is a significant year in a students' life; GCSE exam choices are made and thus students begin to consider their post-16 plans and options. The research comprises a group of 20 students as well as a comparison group of 20 students. The two groups are matched for gender and FSM and, as far as possible, for ethnicity and actual and predicted levels of attainment, in terms of the target for 5 A*-C at GCSE, as well as attainment in the core subjects of English, Maths and Science. Whilst students are not matched perfectly in these 3 core subjects, they are matched as closely as possible in terms of whether they are under attaining in one, two or three subject areas. Students were matched on a case by case basis and were selected from an anonymised data

set for the whole year 9 student group - which was provided by the school. The intervention group and comparison group are as follows:

	<i>Intervention Group</i>	<i>Comparison Group</i>
<i>Gender</i>	<i>4 females/16 males</i>	<i>4 females/16 males</i>
<i>Ethnicity</i>	<i>14 White*; 3 Black; 3 mixed</i>	<i>14 White; 2 Black; 4 mixed</i>
<i>FSM</i>	<i>7</i>	<i>7</i>
<i>Socio-economic background**</i>	Due to the size of the sample parental occupation is coded into manual/non-manual occupations. Information on occupation depends on students self-report. No student records a parent in a non-manual occupation.	

**The higher proportion of White British reflects the predominate ethnicity of the case study school overall*

***The case study school is situated in an area of high social deprivation and is the most deprived area locally. It is also positioned within the top 5% of areas most deprived nationally for education, skills and training. As the school serves the neighbourhood it which it is situated, it is therefore highly likely that the students who are the subject of this study will themselves come from relatively less advantaged social and economic backgrounds. According to census data for 2001, 65 per cent of people aged between 17 and 74 in the area where the school is located were classified into lower supervisory, manual, students or unemployed categories, the highest proportion for the town overall (ONS: 2006). Data on parental occupation is collected through the questionnaire survey.*

All Reading University ethical guidelines were complied with for the pilot study and will be complied with in carrying out this research.

Research Methods: As the study seeks to capture the impact on attitudes to education and learning of residential outdoor experience, this study tracks 2 groups of students over a period of 2 years: the intervention group, who take part in twice yearly, 4 day residential visits and a comparison group that does not. The impact of visits will be explored through questionnaire and interview data, and school attainment data for both groups. This data will be collected for both groups to enable comparison. Baseline data have already been collected via a questionnaire survey for both groups. The questionnaire explores attitudes to school and learning, experience of schooling and ambitions and aspirations post-16. In addition, school attainment data consisting of Key Stage 2 SATs results and CAT scores plus teacher assessment data from year 7 (age 11) have been collected for both groups. These data provide important baseline information on current attitudes to education and learning alongside current and predicted levels of attainment, thus allowing us a starting point as well as a means to control for change against that which might be expected. To account for change that may be explained as the result of maturation etc., survey data will be re-administered to both groups once a year and followed up with interviews for both groups also. Assessment data for the research and comparison group will be collected again at the end of the project, after 2 years and will be compared with predicted achievement at the beginning of the research as well as actual attainment in GCSE examinations. Data collected via 1:1 interviews carried out once a year with both groups will be used to explore questionnaire responses in more depth. Data has also been collected via additional qualitative means via the research team attending, and participating in, the residential trips across the first year of the research and they will continue to do so. Data is therefore collected via participant observations as well as more unstructured interviews that arise through opportunities presented over the residential weekends, for examples, with respect to the activities being undertaken, as well as during leisure time. By participating in the

residential activities and social times, the research team were able to develop relationships of trust with the students which enable a better understanding of the students included. This also ensures a greater validity to the data collected. Data collected in this way adds a further layer of richness to the research. Data collection is ongoing and I therefore report on the first year.

Data analysis: The baseline data and data from the comparison group will allow for potential changes within the research group to be identified and compared against changes that might have been predicted without the outdoor residential experiences. Data collected via survey and on student attainment levels will be analysed using the Statistical Package for the Social Sciences software package and the second stage of data collection is planned for June of this year. All qualitative data collected thus far has been analysed within the Nvivo software package. Data was coded and explored via an inductive/deductive analytical approach and was used to illuminate in more depth the quantitative data as well identify new and emergent areas of interest.

The Case Study School: The school included in this study is situated in an area of high social deprivation and is the most deprived area locally. It is also positioned within the top 5% of areas most deprived nationally for education, skills and training. In 2010 only 0.7% from this area went into higher education, compared to 55% for the area overall. In February 2012 the school was placed onto Special Measures.

The Outdoor Residential Centre: The outdoor centre was developed through a partnership between an associated Educational Trust and the neighbourhood in which the case study school is situated. Focusing in particular on schools in neighbourhoods of high social disadvantage, it provides a range of outdoor residential experiences in a location which is very rural; being situated within a large woodland landscape, yet not at too great a distance to the homes and schools of the students who attend. In this research students take part in a range of programmes that have been designed specifically for the research. The programme includes activities such as woodland archery, canoeing, mountain biking and making a fire etc. and also includes opportunity for self-reflection and team building skills. The programme is carried out by qualified outdoor educationalists and students are accompanied on the residential trips by teaching staff from their school.

Significance: A draft journal article of the initial findings of this study in relation to student interviews has been submitted for peer review. A further paper is planned later this year. The initial findings will also be presented at BERA, 2014

In summary:

- The interim results of this small scale study suggest that the outdoor residential experiences that students are participating in are already having an important influence on the levels of confidence students feel they now have. Whilst the effect varied between students, and was more influential in some areas than in others, that students' were able to articulate positive changes and directly connected these to their experiences and to an improved sense of efficacy is important.
- It was interesting to also note that the activities undertaken were seen by students as directly translating back into the classroom, in terms of promoting changes in attitudes, confidence and behaviour as research suggests it does (Hirsch et al, 2007; Stanford et al, 2006; Wikeley et al, 2000).
- However, perhaps the more significant impact of the outdoor experiences relates to students' perceptions of the influences these have had on their grades; all students discuss making substantial progress. Whilst at this interim point, this is a self-reported improvement, arguably, if students believe they are making progress then

this can only be viewed as a positive, in relation to learning. Whilst it could be contested that the perceived positive impacts on grades and confidence are a direct consequence of the outdoor experiences and instead are the outcome of the attention that is inherent in research of this type does not dismiss the value of the experiences.

- From this research it was the repeated nature of the visits that appeared central, in that it allowed time to embed the positive outcomes of the experiences. Strongly connected to the outdoor experiences was the dominant effect of being part of a cohort. The repeated nature of the visits, and with the same group of students, proved to be a powerfully influential enabler, which facilitated the development of extended social networks of support and friendship that fed back into school. Opportunities to mix with 'different' students promoted confidence to mix and communicate with new people as well as make new friends.

Recommendations for future research: Given the international interest in the broader realm of outdoor learning, it is hoped that at its conclusion this research will contribute in an important way to our understanding of the value of student experience in this area. This research reported here begins to raise interesting points for consideration within both policy and practice. Firstly, it poses the question as to whether the classroom should remain the primary site of learning, particularly for students from poorer socio-economic backgrounds? It also offers evidence to support the value of outdoor experiences in developing positive outcomes within school. This is particularly pertinent for practitioners who seek ways to promote attainment via Pupil Premium funding. It is thus also hoped that when the research concludes it will be able to make recommendations for a much larger scale study, and one that tracks students into their post-compulsory years.

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Carol Fuller, 2014