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Schools methods in an outdoor centre, whatever next!

A comparative study of two approaches to the delivery of an outdoor programme in an LEA outdoor centre

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Overview of the study

This report outlines the findings from a study carried out to compare the effectiveness of two approaches to Outdoor Learning at an Local Education Authority (LEA) Outdoor Education Centre (OEC) delivered to P7 pupils. The area to be to be investigated would be the effectiveness of the programmes on the pupils in supporting the 'four capacities' of Curriculum for Excellence. Schools participating were split into two groups, both groups participating in the same Outdoor Learning programme. One group had the course content chosen for them by the school. The other participated in a OEC run circle time pre course, the pupils choosing their course content from a menu, circle time during their stay at the OEC and finally a follow up circle time, again OEC led, about one month after their course. The hypothesis was that the use of circle time and the element of pupil choice would enhance the children's experience of outdoor learning. This would then lead to a more accurate and more positive self-image within the 'four capacities' of Curriculum for Excellence (CfE).

The sample group numbered 183 and were all P7 pupils. All pupils completed three questionnaires pre, post 1 (at the end of the course) and post 2 (one month after the end of the course).

When results were compared on a school by school basis the two outdoor programmes had a positive effect in the majority of cases. Looking at the whole programme schools in the 'circle time' group averaged a slightly more positive change than those in the control group.

Background to the study

Outdoor learning is often said to be good for pupils as it very effective in promoting PSD but more often than not the evidence is very anecdotal as is highlighted by the quote below,

> *There is a lack of evidence relating to young peoples' outdoor learning experiences. Again this places provision in an un-necessarily weak position. Consequently it is imperative that research into young people's experiences is conducted in order to assist the planning and future of outdoor learning provision in Scotland.*
>
> *(Nicol, Higgins, Ross 2006)*

It has also often been commented on how outdoor courses for schools have been an extra to the curriculum, a bolt on, no matter what positive outcomes they are said to generate.

> *These practical approaches to learning must not be seen as a 'bolt-on' or alternative form of provision but part of an integrated experience.*
>
> *(Building the Curriculum 3, 2008)*

Hattie (1992) suggested that courses that take place in unfamiliar environments have greater effects. Other literature indicates that challenges present in activities should be holistic in order to maximise course outcomes (Gass, 1995; Kimball and Bacon, 1993) Courses at the OEC do take place in an unfamiliar environment for the pupils and follow an experiential learning pattern and a student-centred holistic approach to learning. This promotes an active involvement in the learning process. Cooper (1994) reinforced this indicating that the lessons from experiential education demonstrated that:

> "good education is holistic; it is concerned with mind, body and spirit. Motivation and enthusiasm are essential ingredients of effective learning".
>> (Cooper 1994 p10)

However, Richards (1994) argued that:

> It is no longer sufficient to expose as many young people as possible to an outdoor adventure experience. The need is to engage in the process of learning through the outdoors and to extend the philosophy of adventure based experiential learning into the classroom, community and the inner city.
>> (Richards 1994 p.6)

To integrate the course into the curriculum should have positive benefits to pupils especially with the dependence of all curricular areas on each other as highlighted in Curriculum for Excellence. Involvement of the children in the decision making process from the outset should have a positive effect on the motivation and enthusiasm for their course.

> Learning in the outdoors can make significant contributions to literacy, numeracy and health and wellbeing. In literacy there are opportunities to use different texts: the spoken word, charts, maps, timetables and instructions. In numeracy there are opportunities to measure angles and calculate bearings and journey times. In health and wellbeing there are opportunities to become physically active in alternative ways and to improve emotional wellbeing and mental health. Therefore, outdoor learning offers many opportunities for learners to deepen and contextualise their understanding within curriculum areas, and for linking learning across the curriculum in different contexts
> and at all levels.
>> (Curriculum for excellence through outdoor learning, 2010, p9)

Taking circle time, which is widely used in primary schools, to initiate the curricular link seemed an effective tool with which to start the integration. Circle time is a technique that has grown in popularity with teachers over the past fifteen years.

> "The circle symbolises equality, inclusion and sharing of ideas. There are no barriers."
>> (Draper, 2000, p.29).

Mosley (1993) believes sitting in a circle to be beneficial because, as well as emphasising equality, it is also a sign of unity where attitudes of honesty and trust are promoted. The

OEC staff would be seen in the school collaborating with school staff and the school staff might be encouraged or enthused to connect more of their curricular work to the children's visit to the OEC. Using circle time as tool to help introduce the residential OEC experience also had the bonus that in many schools it is already part of the planned weekly time table. Pupils would therefore not 'miss' part of their normal lessons for the outdoor centre meeting.

> *Curriculum for Excellence can best be delivered through partnership working. All establishments should work with partners and share a common understanding and language around skills development and application.*
> *(Building the Curriculum 4, 2009)*

> *Partnerships between staff in schools, other educational settings and with other organisations will create working relationships that contribute to professional development for teachers and educators and construct clear pathways for delivering Curriculum for Excellence experiences and outcomes outdoors.*
> *(Curriculum for excellence through outdoor learning, 2010, p7)*

The Study

The courses for P7 at the OEC are designed to address the four capacities of CfE and within the four capacities specific attributes have been highlighted that can be effectively addressed. These are listed below:

Successful learners

- enthusiasm and motivation for learning
- determination to reach high standards of achievement

Confident individuals

- a sense of physical, mental and emotional wellbeing
- relate to others and manage themselves

Responsible citizens

- respect for others
- commitment to participate responsibly in political, economic, social and cultural life

Effective contributors

- communicate in different ways and in different settings
- work in partnership and in teams

It was decided that pupils would follow two types of programmes, one being the standard outdoor education course which would be the control group and the standard course with the addition of circle time.

The approach to the two types of course is outlined below:

A.

- 5 day residential visit
- Immediately before the pre visit presentation children would complete a self assessment questionnaire (Appendix A)
- Pre visit presentation by member of OEC staff at school to pupils and parents to explain the programme. (two to four weeks before visit)
- Pupils take part in five days of outdoor education activities and environmental studies
- Each day group reviews activities with instructor
- Each evening each pupil reviews their day in a diary
- Visit concludes with a group review from the instructor and a presentation of certificates by principal and completion of self assessment questionnaire (Appendix A)
- The self assessment questionnaire would be filled in again approximately Four weeks post visit (Appendix A)
- Teachers could then discuss with the whole class how things have changed or otherwise since their visit to the OEC

B.

- 5 day residential visit
- Before pre visit presentation children would complete a **brainstorming handout on their visit** (Appendix C)
- Immediately before the circle time children would complete a self assessment questionnaire (Appendix A)
- **Pre visit, a circle time would be run in collaboration with school to develop strategies for this new experience**
- **A presentation would be given to the children to enable them to choose their programme in collaboration with school and OEC**
- **The chosen programme would then be presented to the parents and children at their pre visit meeting**
- Pupils take part in five days of outdoor education activities and environmental studies
- Each day group reviews activities with instructor
- Each evening each pupil reviews their day in a diary
- **A circle time would be run on the Wednesday evening, in collaboration with school staff, to highlight the achievement of outcomes that had been set for the week**

- Visit concludes with a group review from the instructor and a presentation of certificates by principal and completion of self assessment questionnaire (Appendix A)
- **A post visit circle time to reflect on issues raised during the pupils stay at the centre, run in collaboration with school staff approximately four weeks post OEC visit**
- The self assessment questionnaire would be filled in again (Appendix A)
- Teachers could then discuss with the whole class how things have changed or otherwise since their visit to the OEC

To assess these two courses it was initially decided Neill's Life Effectiveness Questionnaire (LEQ 24), (Neill et. al. 2003) which contained 24 questions would be the most appropriate of the recognised assessment tools, but after discussion with class teachers it was thought to be too long and detailed for P7 pupils. James Neill was contacted and he suggested that the LEQ 16 be looked at which he had used for younger students. The questionnaire that the children completed is based on this. The LEQ had eight levels of competency which again was thought to be too complicated for P7 pupils and through further discussion with teachers was reduced to four. The questions were then aligned with the attributes of CfE the study wished to address. Some questions were removed or re-worded and written in a similar style to the original questionnaire. The re-worked questionnaire was sent to Neill for comment. The relationship of questions to the four capacities within CfE can be found in Appendix B.

The questionnaire was then piloted over an eight week period, (Blaxter, Hughes, Tight 1996) emphasise the need to pilot a questionnaire for research purposes. To pilot the questionnaire, prior to the study, groups visiting the OEC were given pre and post course questionnaires. Each group was given the same explanation emphasising that this was not a test and there was no correct answer to the questions, only their own. Children were asked to miss out any question they did not understand and finally, some children were interviewed to see if their interpretation of the questions concurred with those anticipated by the researcher. The modifications to the questionnaire that came about from the trial period were the changing of the competency numbers to letters and one or two small alterations to the language of the questions. The changing of the numbers to letters led to a greatly improved understanding of how to answer the questionnaire which was born out in the trial through consistency of results and consistency of response through interview. An example of the questionnaire can be found in Appendix A.

Out of fifteen schools offered the opportunity to take part in the study twelve accepted and out of a possible 333 students 183 completed the three questionnaires. No school pupil offered the opportunity to complete the questionnaire declined. The two factors reducing the number of students participating was parental permission (Appendix D) not being given and pupils not attending school on either the pre or post 2 questionnaire days. Schools were randomly allocated which type of course they would follow. All schools following the circle time programme had all the circle times, questionnaires and discussions administered by the researcher and most schools in the control group also had their talk and questionnaires delivered by the researcher. This consistency of approach was used to reduce the variables in delivery and evaluation. It was found impossible to interview students, because of time constraints, to help validate their

results. The method adopted to achieve validity was to ask teachers to rate five randomly chosen children from each school's sample group using the same questionnaire as the children completed.   The percentage change in the teacher's evaluation would be compared to that of the children's evaluation, the level of correlation giving a guide to the validity. Five teachers took part in the validity evaluation giving a possible twenty five responses, though due to absences this was reduced, this time to thirteen. The five randomly selected children from each group should have given approximately a twenty percent sample for comparison. Unfortunately because of the low return the result's statistical validity is low.

Results

Below are the results from each group. The tables show pre course scores, post 1 taken at the end of the course and post 2 taken about one month after the end of the course.

Whole school scores for children participating in circle time (table 1a, b and c)

The scores are derived from taking the average for each child's score for the whole questionnaire summing them and achieving an average score for the school.

1a

School	Pre course score	Post course score 1	Change
1	83%	84%	1%
2	79%	84%	5%
3	77%	81%	4%
4	82%	85%	3%
5	80%	78%	-2%
6	76%	87%	11%
Average	79%	83%	4%

1b

School	Post course score 1	Post course score 2	Change
1	84%	87%	3%
2	84%	80%	-4%
3	81%	76%	-5%
4	85%	84%	-1%
5	78%	77%	-1%
6	87%	83%	-4%
Average	83%	81%	-2%

	School	Pre course score	Post course score 2	Overall change
1c				
	1	83%	87%	4%
	2	79%	80%	1%
	3	77%	76%	-1%
	4	82%	84%	2%
	5	80%	77%	-3%
	6	76%	83%	7%
	Average	79%	81%	2%

It is noted that there is positive change from pre to post 1 evaluation, whereas the trend from post 1 to post 2 is negative, however there was a positive change over the whole study period.

Whole school scores for children not participating in circle time (tables 2a, b and c)

The scores are derived from taking the average for each child's score for the whole questionnaire summing them and achieving an average score for the school.

	School	Pre course score	Post course score 1	Change
2a				
	7	80%	74%	-6%
	8	80%	80%	0%
	9	81%	83%	2%
	10	81%	85%	4%
	11	90%	93%	3%
	12	81%	81%	0%
	Average	82%	82%	0%

|	School	Post course score 1	Post course score 2	Change
2b				
	7	74%	70%	4%
	8	80%	84%	4%
	9	83%	89%	5%
	10	85%	81%	-4%
	11	93%	88%	-5%
	12	81%	85%	4%
	Average	82%	83%	1%

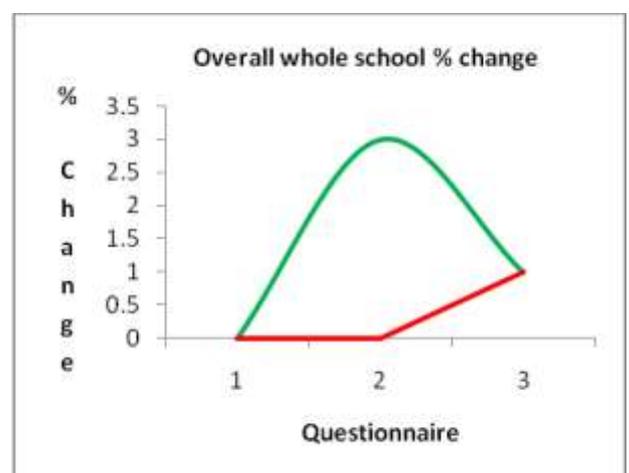| School	Pre course score	Post course score 2	Overall change
7	80%	70%	-10%
8	80%	84%	4%
9	81%	89%	8%
10	81%	81%	0%
11	90%	88%	-2%
12	81%	85%	4%
Average	82%	83%	1%

2c

Again from pre to post 2 evaluations there is a positive change. In this case a small positive change takes place post course.

Overall whole school scores

i.
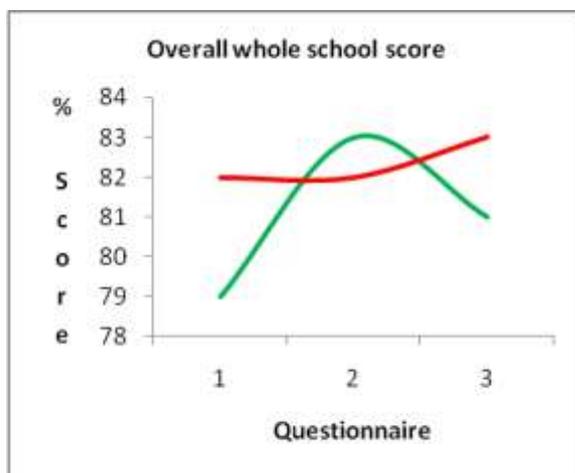
ii

─────── Circle time course

─────── Non circle time course

It can be seen that the circle time group derive greater benefit during the course but the positive change is not maintained back at school.

Effect on the four capacities of CfE with circle time (tables 3a, b and c)

The scores are derived from taking the average of each school's score in the sample in each of the four capacities, summing them and taking the average.

3a

Four Capacities	Pre course score	Post course score 1	Change
Successful Learners	80%	86%	6%
Confident Individuals	72%	78%	6%
Responsible Citizens	82%	86%	4%
Effective Contributors	79%	82%	3%

3b

Four Capacities	Post course score 1	Post course score 2	Change
Successful Learners	86%	84%	-2%
Confident Individuals	78%	74%	-4%
Responsible Citizens	86%	85%	-1%
Effective Contributors	82%	79%	-3%

3c

Four Capacities	Pre course score	Post course score 2	Overall change
Successful Learners	80%	84%	4%
Confident Individuals	72%	74%	2%
Responsible Citizens	82%	85%	3%
Effective Contributors	79%	79%	0%

Effect on the four capacities without circle time (tables 4a, b and c)

The scores are derived from taking the average of each school's score in the sample in each of the four capacities, summing them and taking the average.

4a

Four Capacities	Pre course score	Post course score 1	Change
Successful Learners	85%	89%	4%
Confident Individuals	76%	77%	1%
Responsible Citizens	86%	86%	0%
Effective Contributors	78%	84%	6%

4b

| Four Capacities	Pre course score	Post course score 1	Change
Successful Learners	85%	89%	4%
Confident Individuals	76%	77%	1%
Responsible Citizens	86%	86%	0%
Effective Contributors	78%	84%	6%

4c

| Four Capacities	Pre course score	Post course score 2	Overall change
Successful Learners	85%	87%	2%
Confident Individuals	76%	77%	1%
Responsible Citizens	86%	95%	9%
Effective Contributors	78%	84%	6%

Percentage change in the four capacities

──────── Circle time course   ──────── Non circle time course

iii

% Change in Successful learners

iv.

%change in Confident indviduals

v.

% Change in Responsible citizens

vi.

% Change in Effective contributors
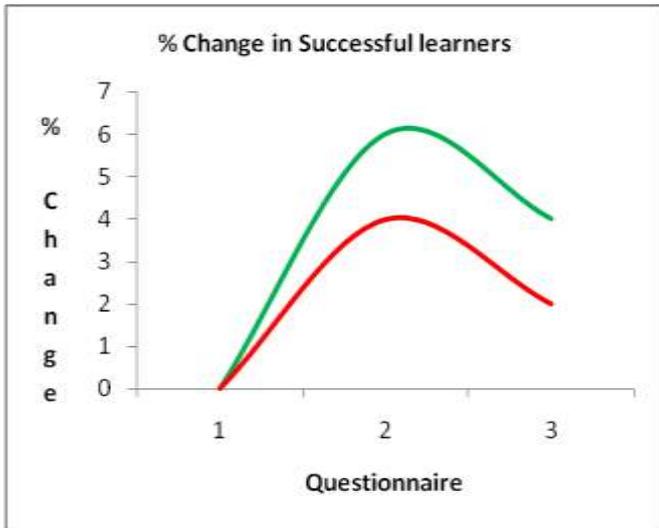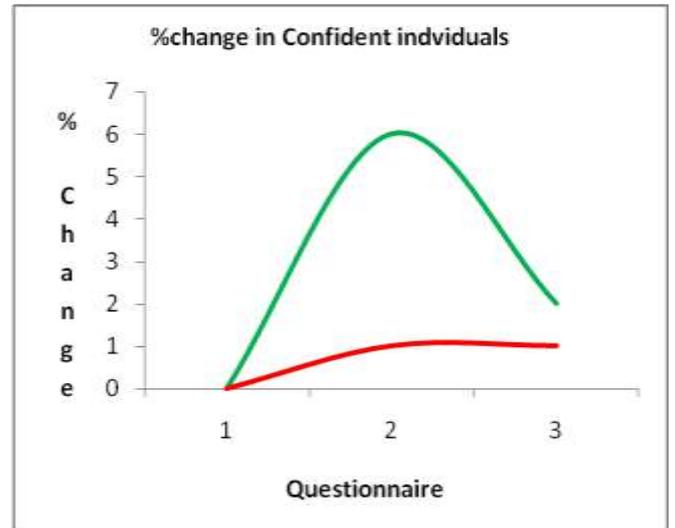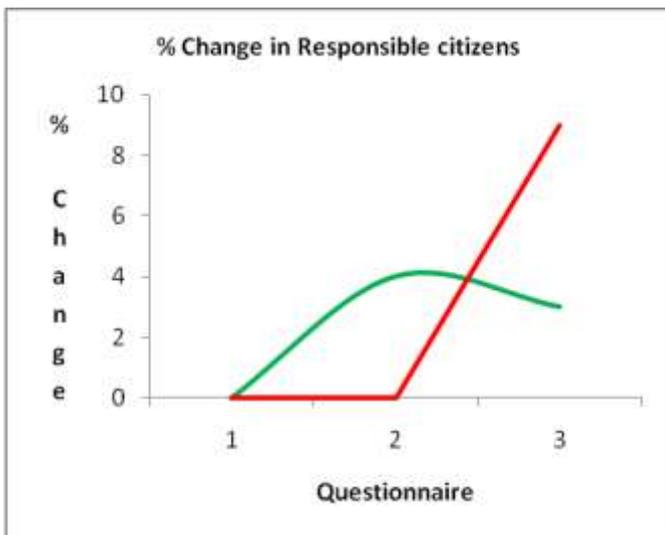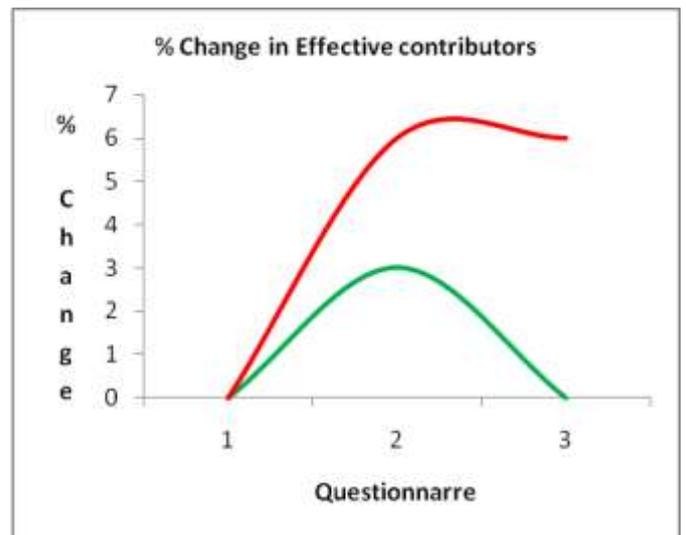
The pattern that was seen in the whole school results repeats itself in all of the four capacities. That is a very positive change at the centre for the circle time group which tails off on return to school, but it is consistent. Whereas the non-circle time group did not show a consistent pattern.

It is also noted from the pre-course scores is that the non circle time group tended to rate themselves initially higher than the circle time group.

vii.
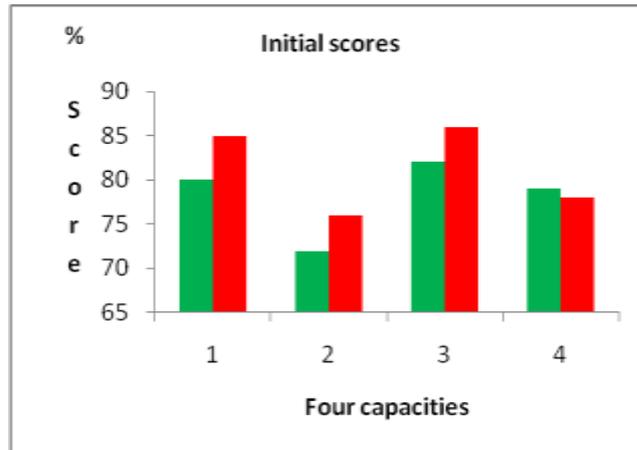
Effect on the eight attributes within of CfE with circle time (tables 5a, b and c)

The scores are derived from taking the average of each school's score in the sample in each of the eight attributes, summing them and taking the average.

5a

Capacities	Attributes	Pre course	Post course score 1	Change
Successful	Enthusiasm	77%	84%	7%
learners	High standards	83%	87%	4%
Confident	Relate to others	71%	78%	7%
individuals	Sense of wellbeing	74%	77%	3%
Responsible	Respect	86%	90%	4%
citizens	Commitment	82%	82%	0%
Effective	Communicate	79%	83%	4%
contributors	Partnership	80%	82%	2%

5b

Capacities	Attributes	Post course score 1	Post course score 2	Change
Successful	Enthusiasm	84%	84%	0%
learners	High standards	87%	85%	-2%
Confident	Relate to others	78%	71%	-5%
individuals	Sense of wellbeing	77%	78%	1%
Responsible	Respect	90%	88%	-2%
citizens	Commitment	82%	83%	1%
Effective	Communicate	83%	81%	-2%
contributors	Partnership	82%	78%	-2%

5c

Capacities	Attributes	Pre course	Post course score 2	Overall change
Successful	Enthusiasm	77%	84%	7%
learners	High standards	83%	85%	2%
Confident	Relate to others	71%	71%	0%
individuals	Sense of wellbeing	74%	78%	4%
Responsible	Respect	86%	88%	2%
citizens	Commitment	82%	83%	1%
Effective	Communicate	79%	81%	2%
contributors	Partnership	80%	78%	-2%

Effect on the eight attributes within of CfE without circle time (tables 6a, b and c)

The scores are derived from taking the average of each school's score in the sample in each of the eight attributes, summing them and taking the average.

6a

Capacities	Attributes	Pre course	Post course score 1	Change
Successful	Enthusiasm	82%	89%	7%
learners	High standards	89%	89%	0%
Confident	Relate to others	72%	74%	2%
individuals	Sense of wellbeing	80%	80%	0%
Responsible	Respect	86%	88%	2%
citizens	Commitment	85%	85%	0%
Effective	Communicate	83%	83%	0%
contributors	Partnership	81%	89%	8%

6b

Capacities	Attributes	Post course score 1	Post course score 2	Change
Successful	Enthusiasm	89%	86%	-3%
learners	High standards	89%	84%	-5%
Confident	Relate to others	74%	75%	1%
individuals	Sense of wellbeing	80%	78%	-2%
Responsible	Respect	88%	87%	-1%
citizens	Commitment	85%	84%	-1%
Effective	Communicate	83%	83%	0%
contributors	Partnership	89%	83%	-6%

6c

Capacities	Attributes	Pre course	Post course score 2	Overall change
Successful	Enthusiasm	82%	86%	4%
learners	High standards	89%	84%	-5%
Confident	Relate to others	72%	75%	3%
individuals	Sense of wellbeing	80%	78%	-2%
Responsible	Respect	86%	87%	1%
citizens	Commitment	85%	84%	-1%
Effective	Communicate	83%	83%	0%
contributors	Partnership	81%	83%	2%

Comparative view of the eight attributes
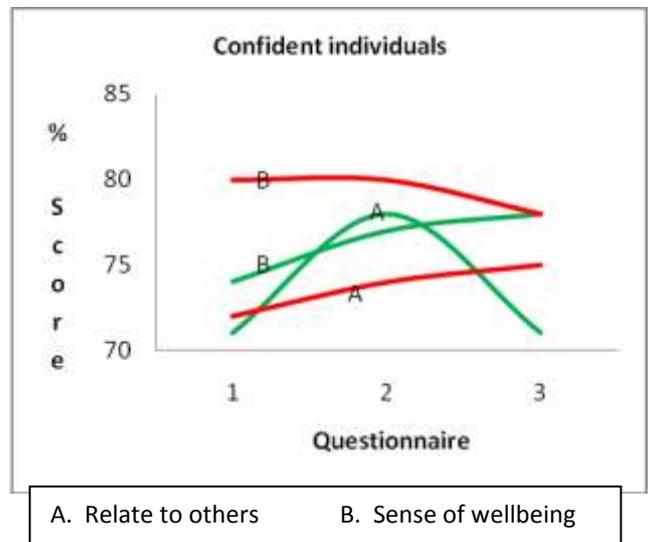
————— Circle Time Course

————— Non Circle Time Course

viii.

A. Enthusiasm   B. High Standards

ix.

A. Relate to others   B. Sense of wellbeing

x.

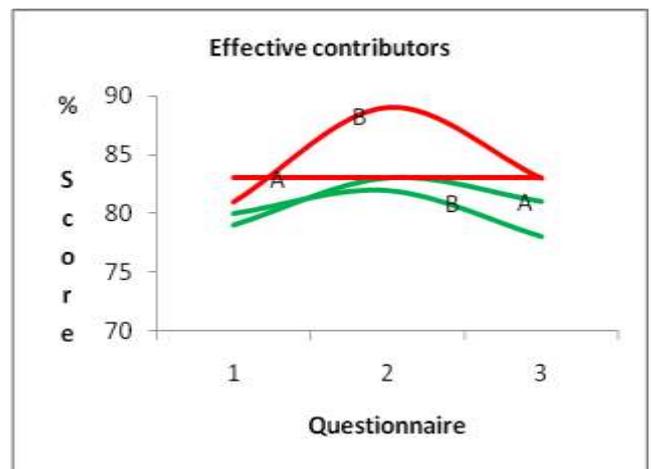### Responsible citizens

| A. Enthusiasm | B. High Standards |

xi.

Effective contributors
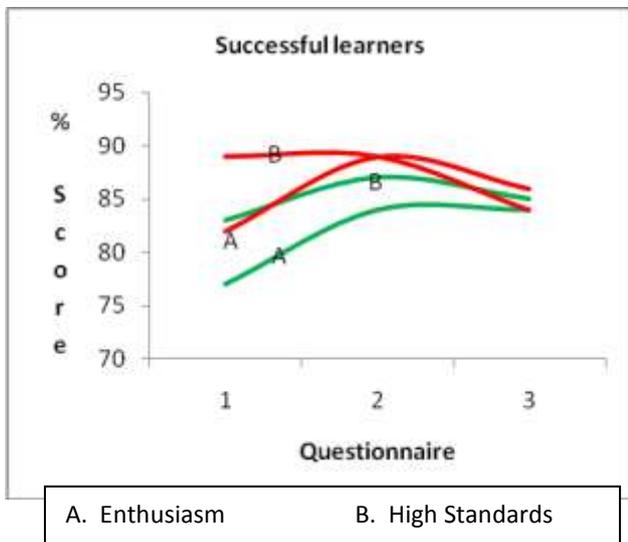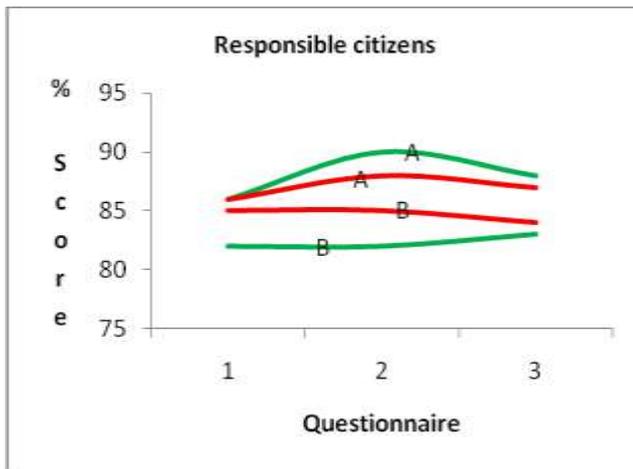
| A. Relate to others | B. Sense of wellbeing |

When broken down into the eight attributes the circle time consistency in the four capacities is still obvious and the non-circle time inconsistency remains evident.

Correlation test

The scores are derived from the average scores for the whole questionnaire for teacher review of individual pupils involved in both circle and non circle time sections of the study.

7a

Pupil/ teacher	Pre-course Teacher	Pre-course pupil	Post course 1 Teacher	Post course 1 Pupil	% diff Pre/Post1 Teacher	% diff Pre/Post1 pupil
1	71%	81%	82%	86%	11%	5%
2	70%	72%	57%	57%	-13%	-15%
3	52%	78%	58%	73%	6%	-5%
4	85%	91%	85%	97%	0%	6%
5	61%	78%	57%	59%	-4%	-19%
6	55%	75%	59%	67%	4%	-8%
7	73%	97%	82%	95%	9%	-2%
8	80%	78%	83%	85%	3%	7%
9	59%	78%	70%	100%	11%	22%
10	74%	66%	78%	83%	4%	17%
11	61%	78%	60%	84%	-1%	6%
12	64%	73%	77%	73%	13%	0%
13	80%	86%	80%	86%	0%	0%
Average					3.3%	0.6%

7b

Pupil/ teacher	Post course 2 Teacher	Post course 2 Pupil	Overall % diff Pre/Post 2 Teacher	Overall % diff Pre/Post 2 Pupil
1	77%	78%	6%	-3%
2	64%	70%	-6%	-2%
3	59%	58%	7%	-20%
4	76%	72%	-9%	-19%
5	64%	56%	3%	-5%
6	60%	80%	5%	5%
7	82%	97%	9%	0%
8	82%	100%	2%	4%
9	64%	84%	5%	6%
10	79%	63%	5%	-3%
11	84%	77%	23%	-1%
12	88%	70%	24%	-3%
13	90%	89%	10%	3%
Average			6.5%	-2.9%

The correlation test, table 7, shows no correlation between the teachers and the pupils' scores. There does not seem to be any similarity in either the scores on the questionnaires or the percentage change from one score to another.

The general overall trend with the two courses is seen to be positive from the staff assessment.

Conclusions

> *In order to maximise the benefits of residential experiences, careful planning and preparation, including work undertaken with children and young people before and after the residential experience, is key to the relevance, coherence, breadth and depth of learning. Project work to take forward during the residential experience should build on previous learning. Taking an appropriate quality task back to the school environment will maintain an important element of depth in the experience.*
> *(Curriculum for Excellence through outdoor learning 2010, p19)*

The above was published after this study started and as with the quotation above most recent writings on the subject of outdoor learning suggest for courses to have real benefit to children, links with the curriculum must be developed. The course must not be a bolt on but an integral part of the curriculum. This is of course is what this study hoped to show.

In both courses the findings show there was generally a positive outcome and there was a slightly more positive outcome seen with the circle time course. As Rickenson *et al.*

(2004) suggested policy makers need to consider ways to encourage good programmes and practices and to what extent the curriculum is supported by outdoor education. Government and local government are always looking for the overall effectiveness of programmes and interventions before giving them support. Tables 1 and 2 (p8, 9) can then be used to assist policy makers in deciding on the overall effectiveness of a programme and as to whether it should be supported and promoted. The researcher was surprised at the level of positive shift. It had been confidently expected to show a considerably greater shift to the positive. Looking at tables 1 and 2 (p8, 9) and at (chart ii, p10) it can be seen that the circle time course has achieved a higher positive rate of change than the non circle time course. This result is also observed in some cases to greater extent in the eight attributes, tables 5c and 6c (p15, 16). Even though the overall shift is positive there is one notable exception that is seen in table 1b (p8) where the percentage change is negative. It could be suggested that the pupils in this circle time group have spent more time on self-evaluation and are now thinking more deeply about themselves and their post course 1 and post course 2 evaluations are more accurate reflections on themselves. Within circle time and the ethos developed there is a central place for regular peer feedback.

> *The effectiveness of verbal feedback in producing changes is supported by research findings and is generally considered to the learning process.*
>
> *(Burns, 1983, p377)*

This was also supported by Glasser (1985) where he states that class groups should meet regularly as they:

> *….need to experience the strength that is gained when knowledge is shared and communicated.*
>
> *(Glasser, 1985, p245)*

Furthermore it could be suggested that change at the OEC is more significant because circle times helps the pupils learn from their experiences due to the deeper thought and focus on the experiences through peer feedback. One might infer that that the immediate post course evaluation would be most positive as pupils would tend to be on a high at the very end of the course. Whereas a month down the line back at school, the positive trend should be maintained with the support of school staff but the high of being at the OEC with the buzz all the positives achieved in a short space of time is no longer there and the scores might drop back, though overall remaining positive (chart i, p10).

Looking at the attributes tables 5a, b, c and 6a, b, c (p14-16) it can be seen there is quite a fluctuation in the percentage changes but again it can be seen that the circle time group show a more positive change than the non circle time group. Out of the eight attributes the circle time group score more highly in six. Questions are posed by these results, does outdoor learning work better for some attributes than others? In (chart ix, p16) circle time 'relating to others' there is a marked increase then a drop off back at

school. The idea of the challenging and stimulating environment is important as it causes students to experience a state of dissonance by creating a constructive level of anxiety (Nadler, 1993). (McKenzie, 2000) develops this argument in suggesting that it is overcoming this dissonance through mastery of the tasks that students experience positive benefits, such as enhanced self concept. The development of this enhanced self concept comes from the stimulating and challenging environment at the centre with pupils having to relate and rely on each other to achieve and then sharing success together. Hattie *et al.* (1997) in their meta-analysis of previous studies' findings also noted this increase in self concept, suggesting this came from the opportunity to act successfully in a variety of challenging situations. They also suggested that students need to modify their behaviour to achieve this success. It is the team with the individual being an integral part of the team that leads to the students' successes. In the classroom situation the challenging situations in a new environment are removed. There is not the need to relate to others to achieve.   It is more often down to the individual and shared success is not so tangible. There is not the need to relate to others. With 'respect and commitment' (chart x, p17) there is very little change. It could be argued that in 'respect for different cultures' pupils are programmed to say 'yes' or think they must say 'yes' for fear of being reprimanded. Hopefully this is not the case and students are now so used to being part of a multicultural society that they think about others as classmates, Kimberly and Fizza, or people with whom they are not friendly, Johan and Alec, rather than Polish, Pakistani or Scottish?

Teachers regularly say what a difference they see in their pupils when they get back to school. A fact which is commented on a weekly basis by teaching staff during the end of course review at the OEC. The big positives being greater levels of self-efficacy, ability to work with others in the classroom for a common good and an improvement in positive relationship between teacher and pupil and pupil and teacher. The correlation test, table 7b (p18), when teachers were asked to assess random pupils, the positive trend is reflected in most cases and shows significant percentage changes. Though there was no opportunity to hold post course interviews pupils the researcher was able to speak to a number of teachers on the lack of correlation between teacher and pupil scores. There seemed a general consensus that in many cases pupils when asked to assess themselves initially had quite a high opinion of themselves. Then when they started thinking a bit more deeply about assessment after discussion they veered the other way becoming over critical. To achieve a proper balance in their assessment skills required time and training and many had not yet had the time or frequency of opportunity to develop these skills.

In chart (vii, p14) a greater initial positive self image is shown by the control group which is surprising as at the stage of the study as no pupil had taken part in a circle time for the visit. The groups had been chosen randomly so the pupils who were in the circle time group had not necessarily had any more exposure to the opportunity for self evaluation than the control group. It would have been expected that they all started from a similar base line. The only difference was the circle time group had filled in a thought sheet

about coming to the OEC which highlighted thoughts and feelings they might experience and what they wished to achieve during their visit (Appendix C). Because of the thought sheet pupils were possibly stimulated to discuss the visit to a greater extent and in more depth with each other and their teacher. This must have been enough to focus the pupils' minds on themselves more accurately.

Staff visiting the centre have been asked to jot down on their thoughts of the benefits or otherwise of their pupils visit. Below is a comment from a pupil support assistant (PSA) and a fascinating insight into the passionate views of a teacher which were written down in fifteen minutes and are reproduced without any modification and in their entirety:

> *I noticed the difference in the playground the first year they came back from the centre. They listened to each other more, they weren't as a quick to wind each other up and the shy ones were a wee bit more willing to come up and talk to you. I always notice a difference when they come back.*
>
> *PSA*

> *If the Blairvadach experience is handled well by teachers it can have a terrifically positive and lasting experience on the child. If whilst at BV teachers remain positive, manage and micro-mange children's and group's behaviours, if they subscribe to the high expectations for children's efforts, manners and behaviour whilst plugging in to Blairvadach's's ethos of challenge, **and** then combine this with return-to-class references to, reflections upon and discussions of the whole trip, then a child will grow because of their Blairvadach experience.*

> *I have seen individuals find a love of previously unknown interests -such as indoor climbing- and they have benefitted from all the cascading positive impact that such a hobby has on one's life.*

> *I have seen children effuse upon a success at the centre and brim with pride as they try to describe to stay-at-school classmates how veritably thrilled they were at having learned to ride a bike, or climb a tree, or pilot a kayak.*

> *I have heard children exclaim from the top of a hillwalk, "It just makes you want to take out your paints and paint it," and you know they've been touched by Scotland's natural beauty.*

> *I have seen the child experience the pleasure of achievement after real, seemingly threatening, physical struggle. The child touches base with first-hand Vygotsky-like physical struggle :- for one child, getting half-way up the climbing wall; for another, in the same group, standing one-legged on the pole; yet another, reaching the top of the tree. Each to his own strengths accomplishing the next step in development, and in doing so in a visceral way, in processing physicals skills in such a state of high emotional thrill or stress, the emotive impact acts as a magnifier for memory, and the process of achievement and the experience of 'mastery learning' becomes ingrained in an*

emotionally charged memory that lasts very long indeed. This, if handled skilfully by a class teacher, if explicated by the teacher, if made visible, changes the child and the child gains an enriched access to a 'model for learning' upon which they can learn tables, punctuation, or complete homework more independently. The child has physically touched base again with his/her understanding of the nature of 'challenge', 'struggle' and 'reward' at an important point when much of their maths and language is often becoming more abstract and ephemeral. The child has a common framework and shared experience with classmates and myself on which to base future discussions.

If the trip has been handled and managed well and been a positive experience for the child, then I invariably see a terrific boost in self-confidence in the individuals. They and others know and appreciate that they have survived a tough experience -for some being away from home for the first time, for others learning table manners in a public forum, for certain ones going into dreaded deep water, for all: a physically demanding week. Having survived the children carry their success within them and the invisible 'I survived BV' badge is spoken of with a sense of pride, and becomes a source of self-belief and confidence. You can see the quieter ones with their peers more relaxed and comfortable in the class and playground, and -if the teacher follows-up the experience well- the children will discuss and integrate how proud they are to have been there. The shy and less shy alike move greatly along the self-confidence spectrum, each has enriched their personal survival skills, emotional and physical.

A child can talk about how difficult things are 'survivable', how we work hard, stay positive and help each other. The child has a reference model for these, learned memorably because of the charged emotional state, physically through the soles of their feet, through the tips of their fingers, and it becomes a model that they and we can use in class to augment learning skills.

We survived as a team, we have a 'shared survivors' mentality when we get back that stays with us all year. I see children working more patiently and with less friction alongside, for and with peers who shared their activity groups whilst they were away. In cases it has changed friendship circles.

I've seen the child use the Blairvadach experience as a reference when we're trying to survive tough times, when we have to work long and hard as a team.

I have seen a class that has become set in it's ways shaken up for a week, and old alliances and occasional old slights and feuds are forgotten and rearranged upon the return to class.

I have seen the child use our cool centre experience as a comparative measure for judging how good other class events and experiences are.

Any class will or ought to be, by the very nature of it being a collection of people in an enclosed space, regularly discussing teamwork, group work and appropriate responses. I have seen children have their team-working skills tested and reappraised in the centre's challenging environment. The centre tests, underscores, enriches and highlights teamwork and associated skills and when the children return, if the experience has been positive, with their teamwork skills enriched and extended greatly, because it has been

done in such a memorable, emotional roller-coaster of a week. That's why they remember the team work element, because it has been reinforced in extremis -at the top of a tree, through a two hour hike, on a Scottish loch.

Our school has a five core values that we try to foster and adhere to (Honesty, Politeness, Cooperation, Responsibility and Respect). I have -like the teamwork skills; if the teacher directly or indirectly explicates, and if the experience has been positive- seen our values enriched, tested, and given a forum for application. I have seen the child return with a better understanding of the value and purpose of holding a set of such core values. Having entered another world, a mini-society, apart from the familiar school and familial-associated/mentored haunts, it makes more sense to them and their understanding of the need for shared, common standards that govern behaviour is enriched.

They will see even better the value of manners and a set of values because they're applied in a new challenging setting. Children come back from the safe, small world of strangers at the centre in which they've experimented with and enriched their independent use of values.

If the experience has been positive, each child is always more positive in their relationships with me as their class teacher. They see me in a closer, more positive, better light. With some I will have established much, much better and positive working relationships with than ever before in the class and yet never the opposite. The children get a better understanding of their teacher as another team member who has strengths and weaknesses, successes and failures.

I have seen the high achiever learn to fail, learn to fall flat on their face -literally- before and audience, seen them learn to laugh at full wellies uncomfortably fill with freezing cold water, watch them get back to the Centre and count the blessing of dry socks. They learn to fail, again in a physical, Vygotskian based, visceral way and also from a physical frame of reference they can better revisit the whole subject at their given age and extrapolate for the rest of the year better.

I have seen low achievers find success in physical activity that they never strive to get in Maths or Language. The respect they receive from their peers engenders and enriches self-respect within the group, which helps them feel good about themselves, which eases tensions in class, which if handled well by the class teacher makes them more amenable to jotter work and the like.

Class teacher

To achieve the level of positive progress described above the pupils must have a more positive self image. Why haven't the results fully reflected the above comments? Were the questions really appropriate for the information required? There could have been a longer trialling of the questionnaire to ensure the questions being asked were the correct ones to ascertain the information required. A full trial of the whole three questionnaire process, rather than seeing if the children just understood the questions from two questionnaires over four days, would have been more effective. There were time constraints and unfortunately this process would easily have added six months to

the study. Should the study have concentrated on a narrower field such as self-efficacy and then related this to the attributes in CfE and use a published assessment tool? This was the initial feeling of the researcher but on further reflection the results do support the hypothesis put forward.

The study does show there are positive benefits as seen by the pupils attending these courses and the course that involves the pupils in the whole process, the circle time course, does show a marked positive shift at the OEC but does tail off at school. This is highlighted in the graphical representations of the results by the repeating curve shown in the first part of curve in (chart xii, p25). But why?   The very obvious positive shift at the centre could be attributed to the preparatory work, the brainstorming sheet, the circle time and the choosing of the programme. The value of preparatory work prior to outdoor learning evidenced by Ballantyne and Packer (2002) who found there was significant differences between students who had taken part in pre-visit activities and those who had not. Orion and Hofstein (1994) produce a strong rationale for preparatory work that introduces students to the cognitive aspects of the trip. In 2004 an evaluation of Forest Schools it was identified that close cooperation and communication between school staff and forest school staff was critical to the success of the programme (NEF, 2004). The benefit of preparatory work is further stressed by Healy *et al,* (2001) in creating accessible and inclusive courses.

Would the post course dip have happened in the school where the teacher, who wrote the earlier piece quoted, teaches? The post course dip as suggested earlier could be expected but the extent would be greatly reduced as such a teacher would use the experience in a consistent, positive and practical manner to the benefit of his pupils.

> *... the greatest effects of the adventure programs in the self-concept domain were for independence, confidence, self-efficacy, and self-understanding, and these were further enhanced during follow-up periods*
>
> *(Hattie et al., 1997, p67)*

The importance of follow-up has been highlighted by a number of writers. Uzzell *et al,* (1995) discuss the need for clear links to be made between outdoor learning (physical environment) and indoor learning (school). In relation to fieldwork Orion and Hofstein (1994) suggest that the trip should be an integral part of the curriculum rather than an isolated activity.   Further more if positive program outcomes are to be maintained Pommier and Witt (1995) argue that their study shows the need for long term intervention. To enhance the follow-up Farmer and Wott (1995) argued that the follow-up activities could be more effective if led by a member of staff from the programme undertaken.

The results from this study and evidence from previous research suggest a follow up programme must be developed to assist schools in obtaining maximum benefit for their pupils from their visit. This would then form the links between out of classroom learning with in class learning especially as the boundaries between formal and informal

learning are becoming less clear (Bentley 1998). As Farmer and Watt (1995) suggested this programme might be more effective if delivered by a member of the outdoor education staff in collaboration with the class teacher.
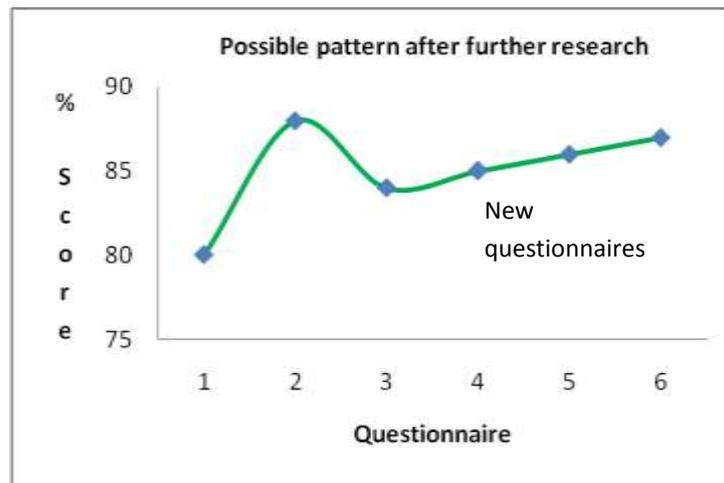
The hypothesis suggested that because of the approach within the circle time group it would lead to a more accurate and more positive self image. This is what the researcher is suggesting is happening in the dip after the high point at the OEC with the pupils now having a more accurate self image. Would the positive progress level out or with this more accurate self image, would the pupils move forward again having had that feeling of success and achievement at the OEC and wish to replicate it back at school or in the wider context of their life?   Only further research would answer this and is supported by Rickinson *et al.* (2004).

> *The relationship between indoor learning and outdoor learning – With the exception of studies focusing on preparation and follow-up work, most research on outdoor learning looks exclusively at what happens out-of-doors. While this is understandable (particularly for programme evaluations), it leaves unexplored all questions about how out-of-classroom learning can support within the-classroom learning and vice versa.*
>
> *(Rickinson et al. 2004, p 57)*

This study though going some way to answering a number of points it has also thrown more questions to be addressed. The researcher therefore concludes that further study must be carried out to follow up the pupils over a longer term basis in the school to find out what happens after the dip. This would mean researching into the relationship between indoor and outdoor learning and how they can be integrated. One of the conclusions of Rickinson *et al,* (2004) in their review of outdoor learning research is that these relationships must be researched.   The research should look at the pupils through questionnaires and also how the visit and its' positive outcomes are applied and followed up within the school and compared to pupil results. If the pattern above was achieved, with the interventions from different agencies, this would be a perfect example of Curriculum for Excellence in practice.

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Initials

Questionnaire

A *means* **All** of the time   **M** *means* **Most** of the time

 S *means* **Sometimes**   **N** *means* **Never**

Please circle the letter in the table after each question that applies to you

I am open to new ideas	**A**	**M**	**S**	**N**
I try to get the best results when I do things	**A**	**M**	**S**	**N**
I try to do the best I possibly can	**A**	**M**	**S**	**N**
I like to learn new things	**A**	**M**	**S**	**N**
I waste time	**A**	**M**	**S**	**N**
I organise the way I use my time well	**A**	**M**	**S**	**N**
I stay calm when things go wrong	**A**	**M**	**S**	**N**
I believe I can do it	**A**	**M**	**S**	**N**
I respect others for their different cultures	**A**	**M**	**S**	**N**
I listen to other peoples' views	**A**	**M**	**S**	**N**
I take part sensibly in activities	**A**	**M**	**S**	**N**
I get on well with other people	**A**	**M**	**S**	**N**
I communicate well with people	**A**	**M**	**S**	**N**
I am a good leader when a task needs to be done	**A**	**M**	**S**	**N**
I am prepared to change my mind if I hear a better idea than mine	**A**	**M**	**S**	**N**
I work well with other people	**A**	**M**	**S**	**N**

Appendix B

Questions

Below shows the questions from Neill's LEQ questionnaire and are numbered from 01-16, the questions that were modified by the researcher are numbered MT 1-MT 7

Successful learners

04	I listen to new ideas
03	I try to get the best results when I do things
11	I try to do the best I possibly can
MT 7	I like to learn new things

Confident Individuals

01	I do not waste time
09	I organise the way I use my time well
14	I stay calm when things go wrong
16	I believe I can do it

Responsible citizens

MT 1	I respect others for their different cultures and beliefs
MT 2	I listen to other peoples' views
MT 3	I take part sensibly in activities
MT 6	I get on well with other people

Effective contributors

10	I communicate well with people
13	I am be a good leader when a task needs to be done
MT 4	I am prepared to change my mind if I hear a better idea than mine
MT 5	I work well with other people

Questionnaire Aims

The aim of the study is to research into the effect the programmes have on specific attributes and capabilities within the four capacities outlined below.

Successful learners

- enthusiasm and motivation for learning **04/MT 7**
- determination to reach high standards of achievement **03/11**

Confident individuals

- a sense of physical, mental and emotional wellbeing **14/16**
- relate to others and manage themselves **01/09**

Responsible citizens

- respect for others **MT 1/MT 2**
- commitment to participate responsibly in political, economic, social and cultural life **MT 6/MT 3**

Effective contributors

- communicate in different ways and in different settings **10/MT 4**
- work in partnership and in teams **13/MT 5**

Name _____

I like to ……

_____

_____

_____

_____

I am good at ……

_____

_____

_____

_____

I would like to be better at ……….

_____

_____

_____

_____

Going to Blairvadach

Below are a lot of words that boys and girls have used about Blairvadach.

Circle any of the ones that you are thinking about before your visit to Blairvadach. There could be a lot you want to circle. You also could write any that are not mentioned in the box at the bottom

fun	high	dirty	exciting	sunny
friends	worry	water	trees	holiday
hard work	sleeping		new people	family
cold	tired	boots	clothes	climbing
away from home	phoning		countryside	fresh air
staying with friends		sharing		working together
new room		looking after myself		new things
challenges	travelling	bored	can't wait to go	
packing	new places		respect	showers
missing people		new activities	listening	helping

These thoughts will be really useful when we get together for a circle time before you come to Blairvadach

Appendix D

Dear Parent,

Your school has been asked to take part in a research project, run by a member of Blairvadach staff looking into the educational effectiveness of your child's visit to Blairvadach Outdoor Centre. The school thinks this is a very useful piece of research and wishes to support it. The project is also supported by Learning and Teaching Scotland and the General Teaching Council for Scotland.

To enable the research to go ahead your child would be asked to fill in a short, five minute or less, circle the letter questionnaire before and after their visit. This questionnaire will be anonymous and will be destroyed after the results have been recorded.

I would be very grateful if you would sign and return this tear off slip to the school if you would be prepared to allow your child fill in the questionnaire.

If you require any further information please contact Malcolm Tuckett at Blairvadach Outdoor Centre.

Thank you very much,

Malcolm Tuckett

Email mtuckett@blairvadach.ea.glasgow.sch.uk or Telephone 01436 820491

I give permission for my son/daughter _____ to fill in the

questionnaire for the Blairvadach research project.

Signature parent/guardian, _____

Date, _____