Outdoor Learning through the school day – the National Curriculum in a tent

Aimee Busko and Clive Palmer
(University of Central Lancashire)

Keywords: *Outdoor Education, Learning Outside the Classroom, Maths, Science, English*

Abstract

This paper is concerned with creating an Outdoor Learning day within the grounds of a Primary school, but with the aim of reducing perceived barriers to Learning Outside of the Classroom. The phenomenological study aimed to capture the teacher's and children's perspectives towards the day that involved practical activities around tent building, making cross-curricular links to Maths Science and English. Problem solving, working in a team and developing numeracy and literacy skills were also core learning outcomes. Data collection for the study was through a questionnaire, in-class observations and an interview with the teacher as well as a focus group with four pupils. The data suggested that learning had taken place and that learning outdoors made a positive contribution to pupils' engagement. Also that the teacher's overall view of Outdoor Learning was a positive one, the study closing with a growing sense of confidence regarding the teacher's freedom to construct their own Outdoor Learning experiences for pupils in the future.

Introduction

In order to contextualise the reporting of this (year-long) research project a format of the school day was used, this presentation style being faithful to the experience of the researcher *in the field* to collect her data. Starting with the Morning Bell when the Aims of the project are explained, continuing through to Home Time and the After School Club; Conclusions, the journey of the researcher and her participants is mapped out logically in this authentic and original manner.

The central theme of the research was to promote Outdoor Learning or Learning Outside the Classroom (LOtC) by using a simple but practical task; working with tents. This practical focus was to explore cross-curricular links with English, Maths and Science with a tent as catalyst for pupil engagement. Foregoing preparations with the study school included: communicating the research concept and gaining their confidence that the sessions were something valuable to trial educationally, a DBS check (Disclosure and Barring Service), risk assessments, lesson planning,

ISSN: 1754-2375 [print]
ISBN: 978-0-9955744-0-3
JQRSS Article No: 1/11-10-1-2016-UG3[28]-093
Web: https://uclan.academia.edu/ClivePalmer/Journal-of-Qualitative-Research-in-Sports-Studies

parental permissions and informed consent for the focus group and follow up interview with the class teacher. The teacher was present at all times not only for legal reasons but also to make observations of her own class being taught by the researcher. The teacher's observations added a valuable layer of data for this project.

Data is incorporated into the text to illustrate the grounded nature of the research and how it was conducted from phase to phase. The timing of the school day determined quite rigidly opportunities to collect data, alongside managing what was judged to be an appropriate strategy for different aged participants:

- On the Outdoor Learning day the researcher would facilitate activities for 'Learning in a Tent' with the pupils in the presence of the class teacher.
- Teacher completed a pre-session Learning Outside of the Classroom questionnaire to explore perceptions of outdoor learning in practice.
- The class teacher would make observation notes of her class being taught adding to the broader perspectives of learning and engagement.
- The pupils completed a workbook exploring concepts in Maths, Science, English which also incorporated a feedback questionnaire.
- The pupils took part in a focus group in the presence of the teacher.
- The teacher was interviewed by the researcher.

The storyline of this research, communicated through the school day helps to preserve the contextual primacy of this study in its educational setting, as well as demonstrating the variety of data collection techniques practiced to represent their world. The paper *Learning to ride a Bike* by Hamilton and Palmer (2014) was an valuable guide starting out, as it too explored cross-curricula links [towards cycling] garnering multiple perspectives and located all the data recording in a school context. Another feature of this report is the honest, critical and self-reflective writing, which exposes many of the worries and doubts commonly held by a novice researcher. Thus. A significant strength is in recognising limitations and weaknesses in research protocol, which are always critical and instructive. The appendices to this paper give useful, practical details about the Outdoor Learning initiative on the day, should others be inspired to follow these lines in subsequent research.

In conclusion, it was found that pupil behaviour, physical space in the school grounds and CPD training for teachers were cited as barriers to implementing LOtC more fully in the curriculum. These issues may be linked raising the aspirations of schools to include this style of learning in the first place and then, lifting teachers' confidence and imagination to make cross-curricular links between learning topics and practical activities which can be accomplished outdoors or be associated with the concept of The Outdoors.

Outdoor Learning through the school day – the National Curriculum in a tent

- Morning bell, quick line up… (Introduction)
- Aims and objectives
- Registration
  (Literature review)
- Good morning class
  (Permissions, consent forms and ethics)
- Good morning miss (methodology)
- Books Out (methods and participants)
- Bag's away (observations)
- Sit up straight, fingers on lips
  (Open-ended questionnaires: discussion)
- Capital letters and full stop's
  (English: discussion)
- Break time
  (Use of screens in school)
- Rulers to the ready
  (Maths: discussion)
- I don't understand Miss
- I get it now
- H^2O (Science: discussion)
- So what have we learnt today?
- Great work everyone
- Tidy up and pack away (feedback)
- Home time
  (Focus groups)
- Line up at the door
  (Semi-structured interview)
- Afterschool club
  (Conclusion)
- References and appendices

Morning bell, quick line up…

Aspiring to follow a career in teaching and a love for the outdoors were the key motivations for developing this research project. I have always been keen on the idea of Learning Outside the Classroom (LOtC) having benefitted from being taught this way, at least in patches, when I was at school. Towards gaining experience for my career plans I have been working as a teaching assistant at a Local Education Authority Outdoor Education Centre helping to facilitate summer programmes that utilise outdoor activities to implement the National Curriculum. These short courses are aimed at boosting pupils' Maths and English grades before moving to high school and are heavily influenced by the topic of study – the outdoor experience being tailored to their school work. Working on these summer programmes sparked the idea of 'why do teachers not use these methods of teaching more often?' which in turn became the focus of this study. Presenting a poster at the Institute for Outdoor Learning conference early in 2015, invited outdoor practitioners to question and relate to my research plans contributing to the development ideas. During this period, a compulsory module at UCLan focusing on the development of research skills, added to my overall understanding of the research process, and confidence to produce a dissertation.

Within schools today, LOtC has become more popular, alongside the Government's efforts to increase Outdoor Learning within schools by releasing the Learning Outside the Classroom Manifesto in 2006 (Departments for Children, Schools and Families, 2006). There have been many positive contributions within Outdoor research identifying the beneficial impact Outdoor Learning has on children (Malone, 2008; Dowling, 2009; Council for Learning Outside the Classroom, 2008), however, there are also limitations which affect the facilitation of LOtC in schools which still, have yet to be tacked let alone overcome. For example, a major worry for teachers are their concerns for liability and their perception of risk when taking pupils on out-of-school visits (Fisher, 2001). As a result, conducting Outdoor Learning within the school grounds, focusing on Maths, English and Science was aimed to limit these barriers associated with LOtC.

The terrain of the school day was negotiated using a variety of qualitative methods, see figure 1, to gather data about the teacher's perception of learning throughout the day. This helped to identify her views towards the sessions and note any barriers that may occur in light of this LOtC practice. Ordering the contents of the report around the timing of the day helped to portray the situation 'in the field' and relate to the LOtC lessons that were tried out. It has also allowed the data to lead the story, being presented in the order it was collected which complements the phenomenological approach adopted.

Teacher's Questionnaire	English session	Maths session	Science session	Pupils Focus Group	Teacher Interview
	Teacher observation	Teacher observation	Teacher observation		
08.45-9.00	09.15-10.35	10.50-12.05	1.00-2.40	2.40-3.00	3.00-3.15

Figure 1. Structure of the school day, timings and data collection

Aims

- Identify main barriers that limit the facilitation of outdoor learning within schools by researching around LOtC.
- Identify barriers, which hinder the facilitation of outdoor learning within the study school specifically.

Objectives

- Create a practical session within a school that limits barriers identified within research surrounding LOtC.
- Identify a variety of data collection methods that would be most beneficial in capturing the teacher's perception of the adapted session.
- Capture the teacher's perceptions towards the session in order to identify any remaining barriers, and her thoughts towards facilitating LOtC.

As a novice researcher, there are limitations which seem to threaten the study, not least the concepts of reliability and validity which are usually acknowledged as features of doing 'good science' research. However, this view is being questioned within qualitative circles, as well as in Mixed Methods (Maxwell, 2005), such as Allen Collinson and Hockey (2005:196) claiming that 'authenticity, fidelity, and believability' are more appropriate criteria for evaluating socio-cultural research. Additionally the limited extent to which qualitative methods were used to collect data in this study may alter the scope and depth of understanding towards the phenomenon and influence claims that might be made from the data (Leedy and Ormrod, 2005). Therefore, the lack of time and/or limited amount of experience in conducting research poses a threat to the strength of the study; opening a claim of superficiality. However, the data is only a glimpse, a snapshot of learning in one day which is designed to offer a faithful representation of those experiences.

Registration

In 2004 it was identified that teachers and schools had become reluctant to take their pupils out of school due to rising health and safety concerns, reduced Local Authority budgets and priority changes within education (Rickinson, Dillon, Teamey, Choi, Sanders and Benefield, 2004). Then, in 2005 there was a growing worry about the lack of outdoor experiences for children in their education generally

such as their poor understanding about farming, food production and sustainability (Dillon, 2005). Furthermore, Natural England (2009) identified that the number of children visiting green spaces had halved in a generation and that nearly two thirds of children play indoors rather than being outside.

The House of Commons Education Select Committee (2005) investigated the idea of 'Education Outside the Classroom' which resulted in their support for Outdoor Education to be recognised more formally. As a result, an overall decision was made for a government-sponsored Learning Outside the Classroom Manifesto with the aim of giving pupils the right to outdoor learning. The Manifesto's vision is that 'Every young person should experience the world beyond the classroom as an essential part of learning and personal development, whatever their age, ability or circumstances' (Children, School's and Families Committee (2010:1). In support of this The Council for Learning Outside the Classroom (2016) provides many cross-curriculum resources, planning ideas and exemplar sessions to help teachers facilitate outdoor learning.

Moreover, the Children, Schools and Families Committee (2010) state that all pupils should have the opportunity to take part in LOtC experiences such as plays, clubs, residential visits, educational school trips, and exploring their surroundings which can consist of their community and school grounds. Malone's (2008) work also supports the use of LOtC and identified that investigating different surroundings can positively impact a student's confidence, engagement and self-esteem. In addition, other research has identified that LOtC can also be very beneficial to pupils who find it hard to concentrate in the classroom (Waite, 2010), but also for personal, social and emotional growth (Dowling, 2009). The Council for LOtC (2008) also conclude that learning in different settings can reduce truancy and enhance knowledge. However there are limiting barriers to LOtC which Fisher (2001) suggests is due to political pressures and a risk-averse society. Humberstone and Stan (2009) point out that a risk-averse culture can limit the teacher's freedom to organise educational events, even if they are educationally beneficial. Similarly, it has been identified that 'risk' is an essential part of child development as it promotes their personality, self-reliance, resilience and teaches them how to deal with risks in life (Gill, 2009). Research by the Department for Children, Schools and Families (2006) highlights that teachers also face barriers such as funding issues, transport complications, resources and a greater work load that can be very time consuming.

Christidou, Tsevreni, Epitropou and Kittas (2013) investigated how learning can be facilitated through creative play within the school grounds, their findings suggested that children need contact with nature as it facilitates relaxation, environmental learning and investigations into natural elements such as animals and plants. However their study does not make any links to the Math and English aspects

of the National Curriculum, or how those experiences can be facilitated (and justified) for older pupils with a more sophisticated learning need. In addition, Wagner's (2000) research investigated how school grounds can be improved to stimulate learning and child development through innovative learning, creative play and recreation. Whilst these are valuable contributions to promote the use of the Outdoors in education generally, there is little or no structure linking their work to the National Curriculum and current classroom practices.

Dyment's (2005) investigation determined whether conducting learning within the school grounds reduced the number of limitations for teachers to provide outdoor learning. His study sought the teachers' perspectives and concluded that teachers felt the sessions lacked curriculum links, which was a significant theme within this investigation. Conversely, Waite (2010) has pointed out that conducting LOtC within the school grounds can be a barrier it itself, as some schools have very limited outdoor space. By comparison, for schools in more rural settings Boric and Skugar (2014) led an investigation that encouraged pupils to analyse and investigate woodlands, water and historical sights, using the outdoors as a medium for learning. Boric and Skugar's (2014) quantitative study concluded that providing pupils with an outdoor research-based lesson, encouraged problem solving, skill development, exploration, enhanced experiential learning and increased curiosity in the environment. However conducting a qualitative study about this kind of learning experience might have gained an in depth understanding into the pupils' and teachers' views and beliefs for Outdoor Learning (Patton, 1990).

Key themes emerging from literature suggested that:

(1) There are barriers such as the perception of risk, cost (time and money) effort and curriculum relevance when taking pupils out of school.

(2) Funding and transports issues, insurance and equality of educational experience in diverse socio-economic communities.

(3) Increased amount of work for teachers – admin preparation, follow-up, parent consents, medical issues, DBS checks and organising assistants to help.

Good morning class

As a starting point for this study, the researcher had previously worked with the class teacher at the study school during the summer period, incorporating the National Curriculum within a host of activities at an outdoor pursuits centre. This early point of contact helped the organisation of the LOtC day in the study school, as the researcher was able to trial initial research ideas with a class and gain a teacher's perspective. After contacting the Head Teacher at the study school, the researcher was required to present an outline of the day (see Appendix 1), a session plan (see Appendix 2), risk assessment and a letter to parents about the research and consent

for their child's participation, as well as permission to take part in a focus group (See Appendix 3). A separate Informed Consent form and Project Overview was given to the teacher, acknowledging that they understood the ongoing research and that they must be present in the classroom at all times (see Appendix 4) In addition, a Pupils off Campus UK Consultancy/Research Risk Assessment Form was completed for the University of Central Lancashire (UCLAN) in order to assess the safety of the data collection process for the researcher and participants. A First Aid Certificate and a DBS form (Disclosure and Barring Service) was presented as well as assurances for professional research conduct taking consideration to minimise any ethical issues to the best of her ability by: keeping all work anonymous, storing data on a secure server (password protected), making sure a teacher was present at all times and not collecting any sensitive information from the pupils or teacher.

Good morning Miss

This study is concerned to understand teacher's and pupils' perspectives about a novel teaching and learning event and this interest in the lived experience couches this research as a phenomenological study (Walman and Kruger, 1999). Fouche (1993) suggests that anything not involved with immediate experience should be ignored, reducing the external world to the certainty of personal consciousness. Therefore treating the teacher's reality and perspective as 'pure phenomena' (Eagleton, 1983), a phenomenological tactic in this study is to get people involved, gathering data on their experience and following themes in that data in relation to the Aims and Objectives of the study (Kruger, 1988). An additional purpose for conducting a phenomenological study was that the term analysis can usually imply breaking down the data, therefore impacting upon the phenomena as a whole. It seems contextually important to view the data as a whole in its natural chronological sequence of events in the school day. Thereby, the data may keep its relevance to the phenomena being studied (Hycner, 1985). Wyatt (2015) identified that there is a lack of qualitative studies that investigate the teacher's self-efficacy and beliefs, and suggests that a quantitative approach does not allow a deep enough understanding of this area to identify specific problems. This view supports the current study as it aims to understand the teacher's view's towards outdoor learning. By adopting a qualitative approach, its flexible characteristics allow participants the freedom to challenge topics or issues that the novice researcher may not have readily identified, due to their lack of experience conducting data collection (Carr, 1994).

According to Cresswell (2014) a qualitative study can adopt a variety of data collection methods, allowing the participants to explain their perception in their own words without being subjected to pre-determined questions (Drever, 1997). A 'purposive sample' was selected for the Focus Group discussion with pupils as the teacher had prior knowledge the study and obviously, the individuals in her class

(Kruger, 1988). In turn, Bryman, Bresnen, Beardsworth and Keil (1988) suggests if the participant and researcher are known to each other, it could result in a more honest and valid response. In contrast to this, Sandelowski (1986) suggests that it could affect the researcher being able to separate the participant's experiences from their own. However, although the researcher and teacher have previously worked together, their relationship was of formal working conditions, which transferred into the school setting and LOtC session.

Another potential weakness in conducting a phenomenological study is that the researcher's presence may cause participants not to give a true opinion and impact the study (Carr, 1994). In turn, the researcher was aware that the pupils within the class did not know the researcher, and therefore allowed time at the beginning of the day in order for the researcher and pupils to familiarize themselves with one another. In addition, having their everyday teacher present helped maintain a normal sense of behaviour. Yilmaz (2013) also suggests that a qualitative study may potentially provide misleading results due to the researcher misinterpreting the data provided by the participant. Therefore the researcher sent the transcripts to the teacher after initial analysis and coding, to edit clarify or add to any information that does not show a true representation of their view and perception toward the phenomenon.

Books out

A questionnaire was given to the teacher at the beginning of the day in order to gain an overall understanding of their perception prior to the start of the session (see Appendix 5). In addition, the teacher was given a blank booklet in which to write detailed observations of their thoughts throughout the day, identifying their perspective towards the activities (see Appendix 6). All pupils were given a work booklet which was carefully structured to identify learning (see Appendix 7). The last page of the student booklet also contained a feedback sheet, providing a basis for the focus group, and allowing the teacher and researcher further insight into the pupils' thoughts on the day. The final data collection was an interview with the teacher after school to gain an overall understanding of her thoughts towards LOtC and issues involving the facilitation of outdoor learning.

Participants: During the data collection, the researcher had gained consent for a class of 19 (n=19, m=10, f=9) Key Stage Two, Year Six pupils aged 10-11 years for their participation and a separate consent form for the teacher (n=1, f=1). None of the student participants had previously met the researcher, however the teacher and researcher had worked three summers together. The research used a purposive sample, as the teacher knows her class and has experience with LOtC.

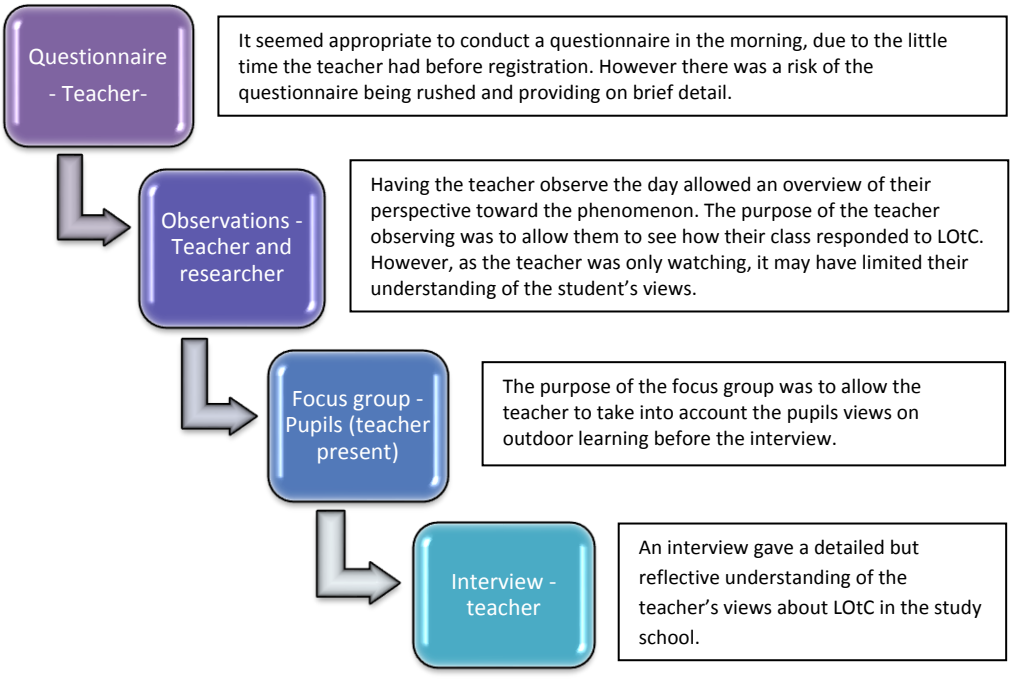


Figure 2: Flow diagram: representing the order of methods and data collection

Bags away

The research uses a variety of observational techniques to tell the story of this school day. Field observations allow the researcher to obtain first-hand information through real life context (Bloomer, Cross, Endacott, O'Connor and Moss, 2012) allowing the researcher to identify participant behaviours and how they may relate to the physical environment (Mulhall, 2003). Throughout the Outdoor Learning day the researcher facilitated the activities and therefore was only able to make observations during the breaks. However, the teacher observed the whole day, providing insight into their thoughts towards the session (see Appendix 6).

According to Schatzman and Strauss (1973), data collected from field notes should be distinctively recognised by their content and categorised as either Methodological Notes, Observational Notes or Theoretical Notes. These help to tell the story and reflect on field work actions. Therefore the field notes collected by the researcher were organised as follows:

Researcher observational notes

Observational notes provide captions of experiences throughout the day by commenting on what is seen and heard. Observational notes should not include any form of interpretation by the researcher in order to provide reliable data.

Researcher theoretical notes
Theoretical notes allow the researcher to create meaning from observations, and make detailed notes on what they have experienced. Theoretical notes can form social science by interpreting observations through a variety of means.

Researcher methodological notes
Methodological notes can be seen as statements that identify instructions, critiques or reminders for the purpose of the researcher's actions. In turn they represent constant feedback and comments on difficulties within the field.

NB: Teacher observational notes:
The teacher's observations were independent from the researcher's notes, providing information on the teacher's views and beliefs.

Sit up straight, fingers on lips

Couper (2000) explains that open-ended questionnaires allow participants the freedom to express their views and opinions towards a phenomenon. Collecting this data before the LOtC session permitted insight to the teacher's previous outdoor learning experiences and those of her class. During the early stages of this project the teacher contacted me through email and explained that the LOtC day would have to be taught in the sports hall due to the limited amount of outdoor space at the school. Whilst this was not a problem, it demonstrates how 'space' can become an issue for some teachers and prevent them attempting a new teaching approach.

Researcher notes:

Observation notes: Before the class had arrived, I handed the teacher a consent form, observation booklet and questionnaire. As I started to introduce myself to the class, the teacher sat in the corner of the room, filling out the documents.

Methodological notes: I felt a little anxious leaving the teacher on their own to fill out the questionnaire, encase they did not understand the questions.

While the teacher filled out the questionnaire, I introduced myself to the class. I was aware that my presence may cause the pupils behaviour to change, which may affect the teacher's perception towards LOtC. However, when the pupils presented poor behaviour such as shouting out, the teacher dealt with the situation, which helped implement a normal and controlled classroom environment. The Teacher's questionnaire identified that she had a positive outlook towards LOtC, however the overall experiences of outdoor learning for the teacher and pupils were varied. The Year Six pupils had two field trips in the space of two years, one of which was non-academic. Whilst the teacher did have some experience of implementing LOtC within an outdoor centre, and within their Post-Graduate Certificate in Education (PGCE), they did not feel they had enough confidence to run outdoor learning sessions and felt that their confidence depended on the curriculum topics. Within certain PGCEs, teachers are asked to participate in residential visits to enhance their

outdoor learning strategies as a means of using the environment within their teaching (Geary, 2016). However, within this research study the outdoor learning experience received through the teachers PGCE and current work experience did not influence the teacher to use the outdoors for teaching and learning.

Extract from questionnaire:

Question One: What previous experience do you have with outdoor learning?
Teacher: Worked at an Outdoor Pursuits Centre for 2 weeks for the past 2 years. One outdoor learning session at PGCE. Tried some session with varying success.

Question Two: How often does your class take part in outdoor learning? (This could be any learning experience out of the classroom e.g. fieldtrips)
Teacher: Not often. Very rarely go on field trips - been on the RE trip in Yr5.

Question Five: Do you think it would be beneficial if you could facilitate learning outside the classroom within the school grounds?
Teacher: Yes - children would engage better and learn life skills as well as curriculum.

Question Seven: Do you feel you have enough experience to run outdoor learning within the school grounds?
Teacher: Not really, I think it depends on the topic and confidence.

Questionnaires can be used to create a basis for interviews (Matthews and Ross, 2010) and areas identified within the questionnaire were intended to be used as a guide for discussion and probes when interviewing the teacher at the end of the day. While a questionnaire was easy to administer, I had no control over interpretation and depth of response which is a limitation of the questionnaire itself. For example, the teacher saw only the new building work in school as barrier to LOtC:

Extract from questionnaire:

Question Four: Do you have any barriers that limit you from organising outdoor learning days? (Please give detail)
Teacher: Due to having a new build, we do not have much outdoor space. Hall always used for P.E, weather.

Providing a questionnaire allowed me to identify and learn first-hand the limitations associated with this method of collecting data. Question four aimed to understand the barriers associated with organising outdoor learning trips such as out of school visits. It could be said that the teacher's understanding of the session planned within the school grounds effected her interpretation of questions proposed in the questionnaire. Therefore in future research, timing of giving the questionnaire needs to be taken into consideration as well as the phrasing of questions for greater depth of response. Within this study, the questionnaire might have been more effective if sent through email beforehand, limiting the distractions made by the

LOtC day. Additionally, a pilot with peers could have helped iron out any problems with the questionnaire before visiting the study school (Matthews and Ross, 2010) .

Capital letters and full stops

The first 'tent' session focused on literacy in the National Curriculum encouraging the use of capital letters, dashes, question marks, brackets, full stops, comas and exclamation marks.

- Link paragraphs using connectives such as then, secondly, after and later.
- Assess the effectiveness of their own work and others work.
- Use appropriate structure

(Department of Education, 2014)

The first task involved the pupils putting up the tents. They were split into four groups which resulted in there being two girl and two boy groups. In their groups half of them were to write each other instructions on individual sticky notes and in their booklets, while the other half put up the tent. Guidance was given for the use of punctuation however, they purposely did not have any prompts to use connectives. The second task was to mix up the sticky notes with the individual instructions, and pass them to another group to put back in order. Lastly, the pupils came together to discuss how the process could have been made easier, and on their own identified that connectives would have simplified the process. Each student was given a sticky note on which to write a connective or time connective, before sticking it on a designated wall, making a connectives board (See Figure 3).

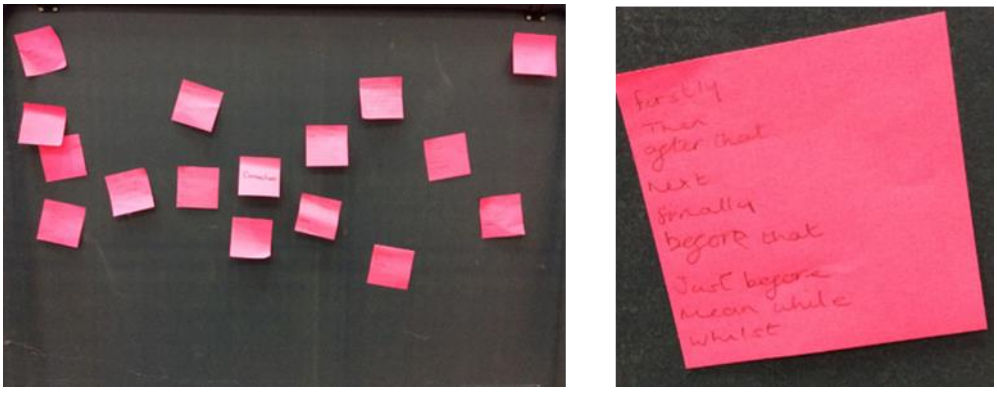


Figure 3: Literacy exercise - pupils' connectives board.

During the first task of putting up the tents, it was evident that some pupils were unsure of what to do. Some pupils started putting up the tents, however no instructions were being written, and others sat down talking to their friends and disengaged with the activity. After going round to each group re-explaining the task and giving support, the whole class seemed more engaged. Once the first task had

been completed, I allowed time for the pupils to play around in the tent, taking ownership of what they had made.

Researcher notes:

Observational Notes: I noticed that the groups really needed support in understanding the instructions; I started to panic as I thought the session would go horribly wrong, but once they grasped the task it was fine.

The teacher also made some observational notes at this point in the English lesson which was useful reflection in real time:

Teacher observations:

Teacher: Extension task for those who finish first so they don't lose focus and get silly?
Teacher: When writing instruction remind them of basics- capital letters, full stops etc.
Teacher: Builds on their knowledge - introducing time connectives - good quality connectives but dependent on prior knowledge.
Teacher: Autism and ADHD children struggled a bit.

The teacher's observations identified that pupils with Special Educational Needs struggled with the activity, but also that pupils needed to be reminded of basic literacy skills. These weaknesses to the session may be due to my poor knowledge of the group, as no information was offered as to pupils' ability levels or educational needs. This in turn meant that the session lacked differentiation for the needs of the class. This may have influenced the teacher's perception of what Outdoor Learning might have to offer, as they could question its effectiveness for catering to the individual needs of the pupils.

Therefore, as the researcher I should have visited the class prior to the LOtC day, allowing myself and the pupils to meet one another with the aim of getting an overall understanding of ability levels, but also limiting the effects of my presence on the pupils' behaviour. Having little experience of teaching curricular subjects contributed to the limitations of the Outdoor Learning. Gaining some classroom experience may have helped implement the basic literacy skills within the session, with the purpose of enhancing the quality of work by the pupils. An alternative approach would have been to liaise with the class teacher earlier, or get some classroom experience within a local school before visiting the study school.

Break time

At the end of the first session [English] there was plenty of time left so the teacher took the pupils back to the classroom and switched on the interactive white board where the pupils watched the news. There was a strong focus on the use of screens in the school. During registration their awards system was through the use of

Facebook, and during lessons they had their class iPad to take photos. At break time they could watch the news again.

Researcher note:

Observational note: The teacher got the news up on the interactive white board, it was really nice to see that the pupils are engaging with the news and how much they understood.

Rulers to the ready

The second session focused on aspects of the Maths in the National Curriculum:

- Round numbers to the nearest 10, 100, 1000 and 10000.
- Calculate perimeter, area and volume of rectangles and squares using cm2, m2, and cm3.
- Convert between different metric measures.
- Scaling
- Draw 2D shapes giving dimensions and angles.
- Recognise, describe and build simple 3D shapes.

(Department of Education, 2014)

The second session [Maths] involved pupils finding the area and perimeter of the tents, measuring in metres and rounding numbers to the nearest 10, as well as working out the volume as an extension task.

Figure 4: The tents used and measured in the Maths exercise.

Within the pupils work booklet pupils were to make a scale drawing of the tent, converting metres into centimetres and provide a ratio for various measurements. They were asked questions about their knowledge of the task to see if any learning had taken place by the end of the session. Pupils completed Task 2, Maths questions A, B, and C (see appendix 7). The teacher mentioned in the break that the pupils had

little experience of working on area and perimeter and that they might struggle. Therefore the session had to be modified on the spot, demanding 'responsive teaching', adapting to the student's needs and abilities (Cox, 2008).

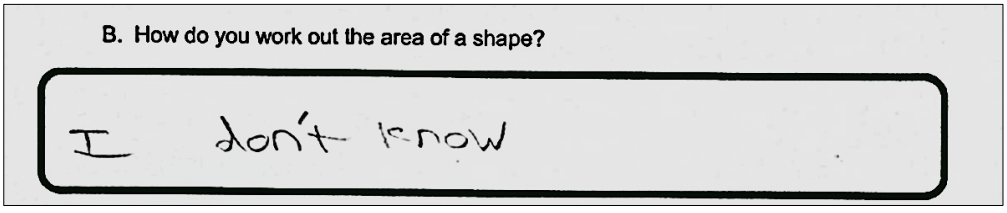


Figure 5: Extract from pupils work booklet, Task 2, Question B.

From figure 5 it is evident that some pupils did not know how to work out the perimeter and area of the tent. Therefore the whole class was bought together to go through the task and then split back off into their groups to answer the rest of the questions in the work booklet. However, this left little time for pupils to finish all of the questions within the booklet.

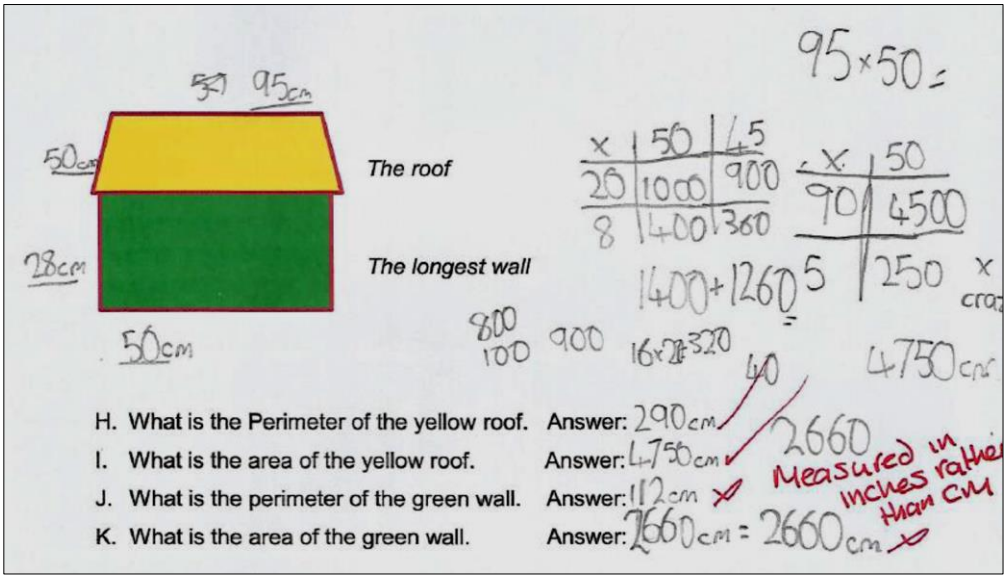


Figure 6: Extract from pupils' work booklet, task 2, question H.

Figure 6 shows that learning has taken place. Task 2, questions H and I were answered correctly, however questions J and K were measured in inches rather than centimetres giving them different results, although their working out was correct. This indicated that the pupils needed more support for understanding terms, however a positive aspect to this session was that pupils learnt the basics of working out area and perimeter. To provide feedback and encouragement the work booklet was marked after the school day, as getting incorrect answers may have affected the

pupils' motivation and affected attitudes towards the session – i.e. the value of Outdoor Learning in their eyes.

Teacher observation:

Teacher: Bought together lots of skills - types of shapes, measuring accurately, adding, multiplying, perimeter and area.

Teacher: Children who wrote 'I don't know' could explain by the end how to find area and perimeter. Really good just needed clearer instructions - maybe some classroom work recapping area and perimeter and then using this to solve problem.

Teacher: Add a real context - broken cover, need to make a new one - need to know how much material and lengths - gives them and end goal.

The teacher identified positive aspects of LOtC and made suggestions for refinements. Her constructive feedback shows links as to how they would facilitate the session differently. This could indicate that the teacher was thinking about the construction of learning outside of the classroom, taking ownership of the idea by coming up with a new activity, building on from measuring the area and perimeter of the tent. This may demonstrate the teacher's critical thinking towards reconceptualised learning through a practical outdoor approach.

I don't understand Miss

Outdoor learning helps contextualise subjects (Woodhouse and Knapp, 2001) and gives pupils the opportunity to gain a better understanding within the curriculum areas (Learning and Teaching Scotland, 2010). Contextualised learning also helps teachers transfer and relate subjects into life situations and aims to capture the student's attention by bringing relevance to learning (Berns and Erickson, 2001). The notion of contextualised learning was a new theme emerging from the teacher's observations which identified that a real-life scenario for an activity would give the pupils an 'end goal'. This may have given pupils more motivation and focus to finish the task. The teacher's comment acknowledged that providing context would have been beneficial, however their teaching is mainly classroom based which suggests that they use predominantly 'imagined scenarios' to help pupils understand curriculum content. This questions how practical or feasible real life situations are for learning in schools as it seems much easier to imagine 'real life' in a classroom than actually going and experiencing it. This seems to be a critical point for my research which I would like to have explored more deeply with the teacher but time did not permit, for example:

(1) What is the net effect of asking children to imagine real-life situations for learning when it is so difficult to get out of school to experience 'real life'?

(2) How reliable is it to ask 10 and 11year olds to imagine real life as a basis for their education?

(3) Is education imaginary?

This may be where LOtC could make a significant contribute to education as a whole if education is to maintain a relevance to real life.

I get it now

On reflection, meeting the class before the Outdoor Learning day (and data collection) would have been beneficial as I could have structured the session around the pupils' abilities and built upon their prior knowledge. On the day, the pupils needed support as they measured in both centimetres and inches, pointing to the need for gaining vital classroom experience, in order to carry out this kind of educational research. Another learning point for me as a researcher was that analysing the teacher's observations before interviewing them would have allowed deeper questioning about comments she made in her observations. Identifying faults within these exemplar LOtC sessions are critical to the study as the teacher may judge outdoor learning too complex or not beneficial, affecting their perception of LOtC. Additionally running a pilot lesson prior to visiting the study school might have helped anticipate or recognise possible difficulties.

Researcher note:

Methodological note: The session did not go to plan, the pupils struggled to understand area and perimeter so I was running round to each group trying to help but eventually they rather got the hang of it. I am concerned as to what the teacher has written about it, and me, I could see them writing as I was conducting the session. I now realise that my lack of experience in teaching directly influences the teacher's views and perception of Outdoor Learning, which could affect the data. I need to show a good example of LOtC practice.

H^2O

The last session focused on the Science National Curriculum:

- Pupils should make conclusions drawing on observations and data, using evidence to back up their knowledge and findings.
- Provide reasoning into the use of everyday materials.
- Record results using scientific diagrams, labels, keys, scatter graphs, bar and line graphs.

(Department of Education, 2014)

The last session of the day [Science] involved conducting an experiment to look at the different fabrics used to make a tent. Identifying which fabric allowed the least amount of water through, discussing the purpose of each material and looking at where and why similar materials are used and seen in everyday life. Pupils put up an actual outdoor tent (see figure 7), not a play tent, to handle and feel the fabrics to bring a tactile element to the discussion.

Figure 7: A modern design mountaineering tent – pupils discussing the qualities of the fabrics used and other aspects of design

Part of the task was to draw and label a diagram, representing their experiment and convey results using a bar chart. Pupils were to create a hypothesis, method and conclusion, familiarising themselves with scientific vocabulary. They talked about how they were going to conduct their research and filled out Task 3, question A and B (see figure 8). Pupils were then given three types of fabric labelled A, B and C to test, which provided the basis for comparison and to formulate a hypothesis for their experiment.

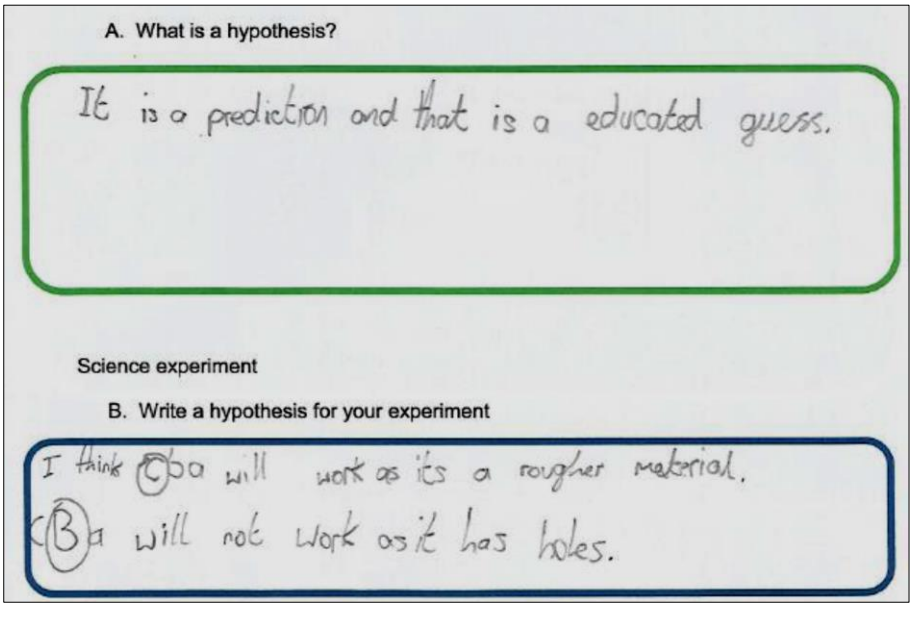


Figure 8: Extract from pupils work booklet, task 3, question A and B.

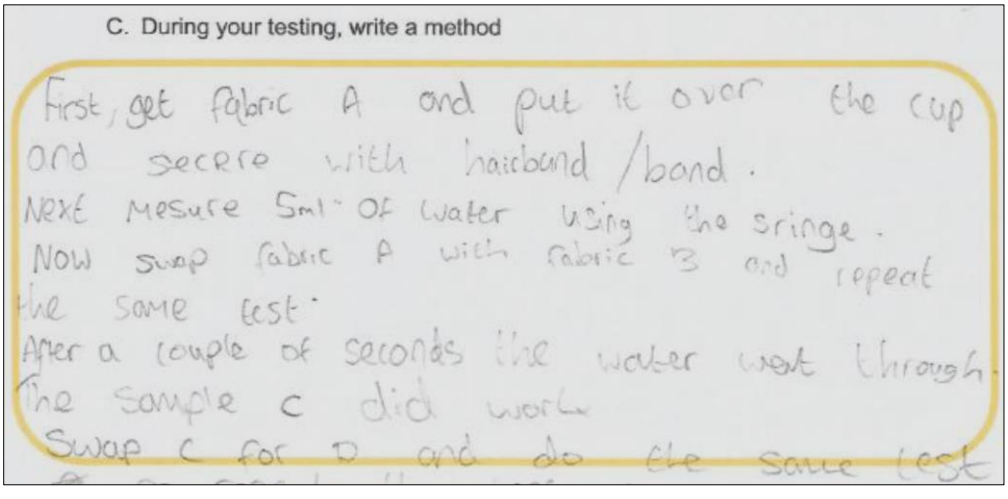
The class was divided in to two groups with the teacher supervising and providing support for half the pupils. The teacher, becoming actively involved with the facilitation of the session, allowed her to identify and understand if Outdoor Learning was affecting her pupils differently in the classroom, as I would not have been able to make this comparison. In addition, my presence may have affected the pupils' behaviour through visitor effect (Patton, 1990) therefore having the teacher independently run part of the session with half of the class showed how the pupils responded to LOtC with minimal impact.

Teacher observations:

Teacher: Really engaged.
Teacher: Worked well in small groups, being out of the classroom made them more interested.
Teacher: Overall really good, kids loved it and learnt a lot.

So what have we learnt today?

During the Science experiment, pupils were to write a Method (see figure 9). This activity required them to write step by step instructions of how they conducted their experiment, which reinforced knowledge from the first session of writing instructions.


C. During your testing, write a method

First, get fabric A and put it over the cup and secure with hairband / band.
Next mesure 5ml of water using the sringe.
Now swap fabric A with fabric B and repeat the same test.
After a couple of seconds the water went through.
The sample C did work.
Swap C for D and do the same test

Figure 9: Extract for pupils work booklet, task 3, question C.

First, get fabric A and put it over the cup and secure with hairband/ band.
Next measure 5ml of water using the syringe.
Now swap fabric A with B and repeat the same test.
After a couple of seconds the water went through.
The sample C did work. Swap C for D and do the same test

During this task, pupils were purposely not reminded about the use of connectives as a means of identifying whether they had retained information from the earlier [English] session. Figure 9 revealed that pupils have remembered to use connectives and time connectives showing that some learning has taken place. Unfortunately there was no opportunity to follow-up after the session to see if learning had been retained over a longer period of time. This lack of follow-up is another weakness of the study which as a consequence, would not discover if the teacher implemented outdoor learning again, especially as they provided such positive observations.

Great work everyone

The pupils' work generated from this activity, was very impressive. They provided a clear diagram showing their results and made a conclusion identifying which fabrics did not allow water through (see figure 10). Although this session went much more smoothly than the first, time was running out which meant pupils were unable to make a bar chart to represent their results.

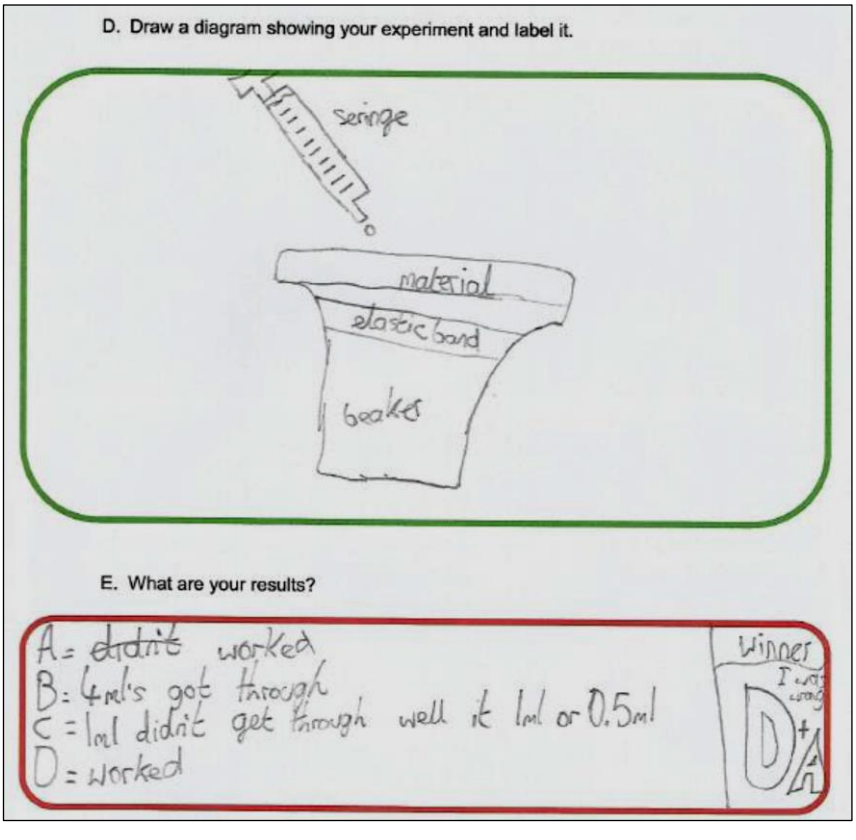


Figure 10: Extract from pupils work booklet, task 3, question D.

Tidy up and pack away

After the session had finished and all the tents had been put away, the pupils completed Task 4, which asked them to provide feedback on the day. Gaining the pupils' thoughts towards the day created a basis for the focus group. The Council for LOtC (2008) acknowledges that all pupils should have the opportunity to experience quality learning out of the classroom which meets their individual learning needs. Therefore gaining information from the pupils can help verify their thoughts towards LOtC, and using a focus group allowed a better understanding into the pupils' experience, giving the teacher insight into the effects of outdoor learning with their pupils. Ultimately, this could influence the teacher's perception depending on the pupils' experience.

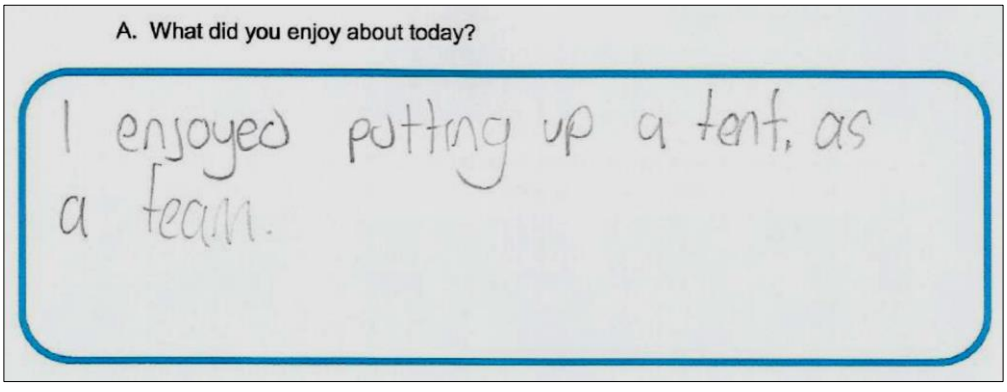


Figure 11: Extract from pupils work booklet, task 4, question A.

Figure 11 shows that the pupils' most enjoyable experience of the day was putting up tents. That was certainly a lot of fun for them. Although this is one student's work, this response was very common throughout other work booklets. Additionally this comment suggests that practical activities contributed to the student's overall enjoyment of the session. The last question in the booklet Task 4 question D, gathered a variety of different responses to curriculum subjects that the pupils would like taught through outdoor learning. Some responses identified a strong focus towards learning bush craft skills and making a fire. Therefore figure 12 shows a cross-curriculum links diagram, born out of pupils comments of how other subjects could be incorporated into 'Learning in a tent'.

'Learning in a tent'

Cross-curricula links in Outdoor Learning with other subjects in the National Curriculum at Key Stage 2 Years 4, 5 and 6

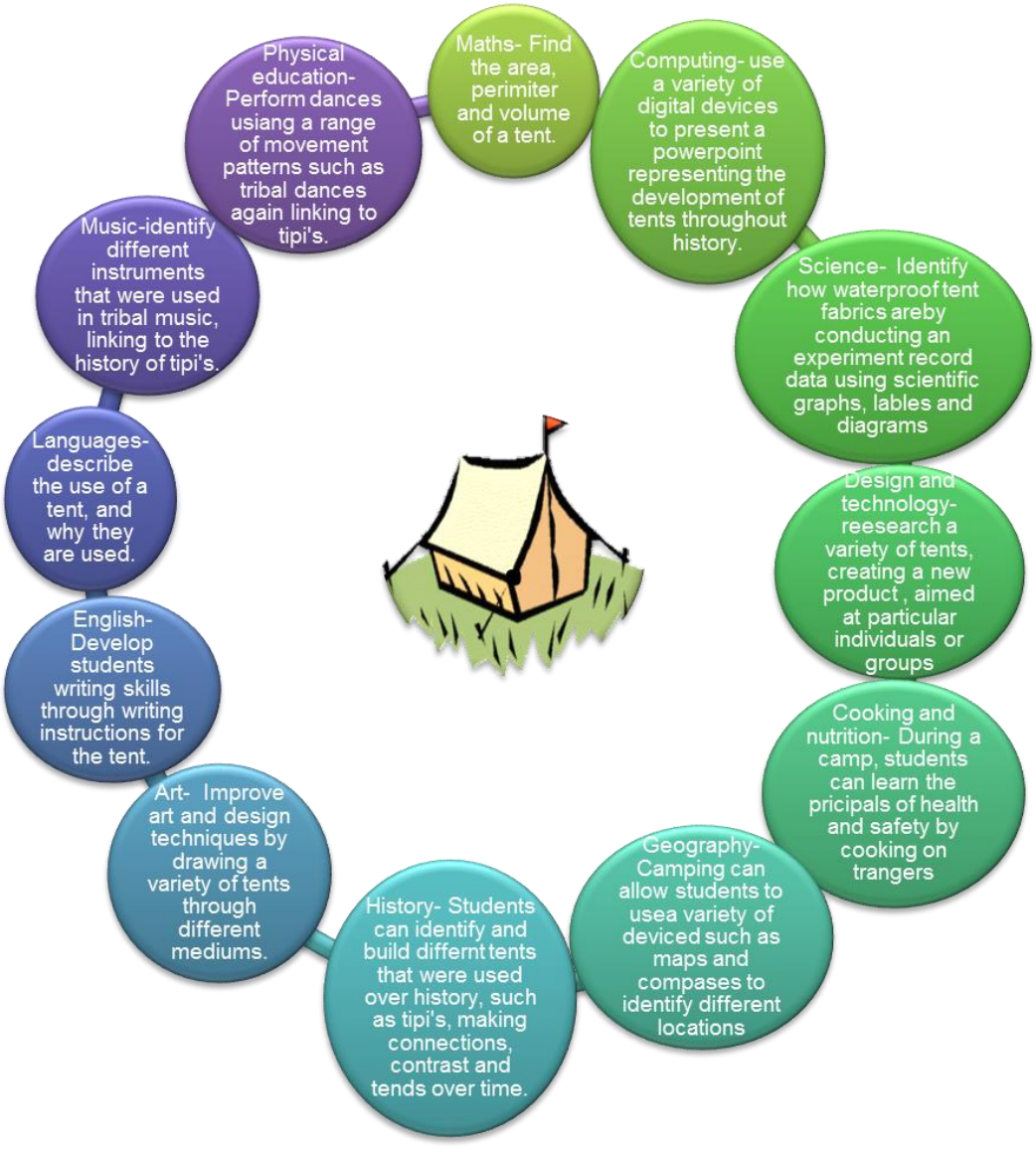


Figure 12: Cross-curriculum links, adapted from the Department for Education, 2014.

Home time

Back in the classroom, the teacher asked the class to put up their hands if they would like to take part in a focus group and selected four pupils. An additional teacher came into the classroom to supervise the other pupils while the teacher led us to another room to conduct the focus group. Interestingly, the pupils that remained in the classroom all got out their individual laptops, which again pointed to the significance of screens within the school.

Focus Group [pupils]

A focus group consists of participants with similar interests and experiences towards the phenomenon (Patton, 1990). Mauthner (1997) suggests that smaller numbers, 3s-4s, are better for focus groups with young participants as they replicate normal social behaviours between peers. As the focus group consisted of (4) pupils in the same class, who all participated in the same activities, this gave them a common ground for discussion. Kaplowitz (2000) suggests that although focus groups can be beneficial, it may also cause the pupils to become shy or unwilling to express their views. Therefore the teacher asked the class to put their hands up if they would like to take part in the focus group and selected the pupils on their own accord. Interviewing pupils from the same class in this way allowed them to contribute to one another's views and opinions, which Krueger (1997) suggests can enhance the quality of data.

Before the recording started, the pupils were briefed about what a focus group is, that their participation was voluntary and that they may leave at any stage. As the devices used to record the discussion were placed on the table, it was clear that some of the pupils felt a little uneasy about it being recorded. This may have affected their responses if they felt pressured to say what they think I want to hear.

At the beginning of the discussion, it was clear that the pupils seemed a little lost. Positive comments were made both on the practicality of building tents and curriculum links made throughout the day. However, there was very little depth to the responses, sounding more like a list of statements which may be an inevitable feature of interviewing Year 6 pupils (11 year olds). Figures 13, 14 and 15 illustrates how I made comments throughout and questioned individuals to encourage their input as well as trying to not to influence or lead the conversation too much. Researcher notes between figures show critical reflections. The phrase 'Erm' was used a lot which indicates that the pupils are speaking freely, thinking and conjuring a response suitable for the discussion. The group seemed uneasy at first as they fiddled with clothing and played with their hands. I noticed that the pupils had seated themselves in the corners of the room, and one behind me, almost hiding.

Focus group transcription table [excerpt 1]

Speakers: researcher/pupils Transcript verbatim	**Topic of Discussion**	**Themes emerging, analysis and body language**
Researcher: Ok, erm, so what did you think about today?	**View of the day and what they liked about it?**	There are some good comments being made on making the tents and on Maths, English and Science. However there is little depth to the student's responses. The pupils liked how active the session was, and were able to identify that there were curriculum subjects incorporated into the day. The flow of the conversation was difficult, the researcher had to try and get everyone engaged in the discussion. Body language - pupils sat in the corners of the room, playing with their clothes and hands. One pupil sat near enough behind me, this indicated that they were shy to talk.
Student 1: *Erm today was erm, today was so good.*		
Researcher: Yeah		
Student 1: *It was epic.*		
Researcher: What did you like about it?		
Student 1: *I liked that erm, we had to build up a tent.*		
Researcher: Yeah…		
Student 1: *And writing the instructions was hard.*		
Researcher: Writing the instructions was hard? What about you?		
Student 2: *I loved it today because we learnt how to put up a tent and put it back away as well.*		
Researcher: Ok.		
Pupils 3: *Erm I found it really good cos we learn what materials are waterproof and which ones aren't, so it could help us if we ever go camping.*		
Researcher: That's good.		
Student 4: *I liked today because we got to learn Maths, Science and English, but in more active ways.*		

Figure 13: Extract from focus group transcript

Researcher notes:

Methodological note: I found conducting a focus group hard as I was aware that my input may have influenced the conversation, but I had to keep prompting them to get a better-explained answer.

Focus group transcription table [excerpt 2]

Speakers: researcher/pupils Transcript verbatim	**Topic of Discussion**	**Themes, Analysis and Body Language**
Researcher: Ok, erm, do you feel like you've learnt anything today?	**Learning: What was learnt in the sessions?**	Yes/no answers again, it is difficult trying to rephrase the questions I have written down do get a better response. The teacher stared asking questions, which by this point was not a problem as the pupils were not giving much detail at all. The pupils' responses to the teacher's questions were more in depth and straight to the point. This identified that they understood the teacher's questions more. Therefore showed that the questions and probes where not suited to the pupils' level of understanding.
Student 1: *Yeah.*		
Student 2: *Yeah.*		
Student 3: *Yeah.*		
Student 4: *Yeah.*		
Researcher: what do you feel you've learnt?		
Student 1: *I've learnt how to build a tent.*		
Researcher: build a tent…		
Student 3: *How to make a play tent.*		
Researcher: ok.		
Student 4: *How to measure the perimeter, area and volume.*		
Researcher: How about you?		
Student 2: *I learnt how to find the area and perimeter of three sided shapes.*		

Figure 14. Extract from focus group transcript

The tents are still a priority within the pupils' replies however the tents were purely a prop for learning. Interestingly, volume, area and perimeter were other aspects commented on, which came as a surprise as it was a new concept to them. Throughout the discussion, yes/no answers became more common and a problem, although I tried to gain more depth, responses were still vague. As a result, yes/no answers seemed to limit the researcher's (and teacher's) understanding of the pupils' thoughts towards Outdoor Learning.

Researcher notes:

Theoretical notes: I was glad that the pupils felt they learnt something other than putting up a tent. Maybe my efforts have had an impact in some way? I wonder what links they could make in understanding the world from this single session? How to find out?

Focus group transcription table [excerpt 3]

Speakers: researcher/pupils Transcript verbatim	**Topic of Discussion**	**Themes, Analysis and Body Language**
Teacher: When you were learning, did you feel like you were learning?	**Was the learning experience obvious? Classroom or LOtC**	At this point it was difficult to distinguish whether the teacher was asking questions for personal interest, or for the researcher. The teacher asked three questions close together; is it the same at the classroom, how is it different and why? It almost seemed like the teacher was getting slightly frustrated. However it was hard to determine what by. It could have been that the pupils were giving vague responses or that they enjoyed LOtC and wanted more lessons like that. Although the focus group was to gain an insight into the pupils' thoughts towards the day, I lost nearly all control over the discussion, which was not a problem as the teacher was gaining insight. Body language: pupils seem comfortable when the teacher asked questions. It was interesting to see the teacher's input into the focus group as although the aim of the discussion was to find out the pupils' views on LOtC, it also allowed the teacher to identify their views as well.
Student 1: *Yeah.*		
Student 2: *Yeah.*		
Student 3: *Yeah.*		
Student 4: *Yeah.*		
Teacher: But you know like in the classroom?		
Student 1: *No.*		
Student 2: *No.*		
Student 4: *In a fun way.*		
Student 3: *No, it was learning but having fun at the same time.*		
Teacher: So how is it different to the classroom?		
Student 3: *It's different from the classroom because you have to sit there in silence.*		
Student 1: *While the teachers talking.*		
Teacher: so which one do you prefer?		
Student 1: *Outside.*		
Student 2: *Outside*.		
Student 3: *Outside*.		
Student 4: *Outside*		
Teacher: why?		
Student 1: *Because, because you get to have fun instead of staying silent.*		
Student 4: *I think you learn more as well.*		
Teacher: Pardon?		
Student 4: I *think we learn more as well, because we're having so much fun we listen more.*		

Figure 15: Extract from focus group transcript

As figure 15 shows, one-word answers were still an issue, but usefully the teacher was able to get some really good responses which may be due to having more experience working with these pupils and wording questions in a way that they understand. When asking children questions, Patton (1990) stresses the importance of using a language that both the researcher and respondent understand. Additionally the pupils seemed more comfortable when the teacher was asking questions, which may have contributed to their more enthusiastic responses to her.

When the pupils were asked if they felt like they were learning, all pupils gave the same reply, that it didn't feel like they were being taught but on reflection they were learning new things. Interestingly the group as a whole suggested that there was a difference between classroom learning and LOtC. The pupils' comments suggest that they paid more attention when practically engaged rather than working silently in the classroom. Although this was an interesting concept, this might have made the teacher uncomfortable, the pupils directly criticising her teaching but without really knowing it.

During the focus group, I had lost near enough all control due to insufficient experience leading this kind of interview. Conversely, this may have positively contributed to the teacher's understanding of LOtC as she had the power to direct the discussion around their interests. Further reflection and analysing the transcript identified that it was difficult to determine whether the teacher was asking questions for personal insight towards 'Learning in a Tent', or getting the pupils to elaborate more on their responses for my benefit. Upon further reflection, there was no-follow up to determine the teacher's intentions behind her questions, which may be an opportunity missed for the study.

The focus group presented a host of limitations. The main concern was mine and the teacher's input, as instead of facilitating a discussion between the pupils, it resulted in a question and answer session and the pupils' responses became short and restricted. Also the recording devices made the pupils feel uneasy and wary of the 'set up' for what seemed a straightforward conversation to them which is a feature of 'manufacturing data' for qualitative research (Silverman, 2007). After further research into conducting focus groups with young pupils, Porcellato, Dughill and Springet (2002) suggest that allowing pupils to familiarise themselves with the recording devices by recording themselves and peers, playing it back and understanding how they sound may help the pupils' reactions to being recorded. Therefore, better planning should have been implemented to establish a comfortable environment for the children. Also I could have used techniques such as pen and paper exercises, pictures and games to help engage pupils within the discussion to put them at ease for focus group work (Morgan, Gibbs, Maxwell and Britten, 2002).

Line up at the door

The pupils all lined up at the door as the bell rang indicating home time. Pupils waved goodbye and were grateful for the Outdoor Learning day. When all the pupils had left, the final data to be collected was an interview with the teacher, to ask her perception of the day. Within the transcripts of the interview (see figure 16) non-verbal body language was noted as part of the analysis to identify emergent themes. Non-verbal body language, gesturing, can be key to understanding meaning, which in can be a valuable supplement to the spoken word (Cummings, 2011).

Semi-structured interview [teacher]

Semi-structured interviews are one of the most common methods of collecting qualitative data (Legard, Keegan and Ward, 2003). A semi-structured interview allows the researcher to give direction within the interview, but permit the flexibility for elaboration on a given phenomenon as may arise in conversation (Gill, Stewart, Treasure and Chadwick, 2008). However, Creswell (1998) and Denscome (2007) suggest that it is possible to increase the credibility of the data through 'member checking' (Lincoln and Guba 1985) which involves sharing the transcript and thematic interpretations back with the source. Therefore the teacher was sent the transcripts to edit and add any information they felt was needed to represent accurately their opinions. However Sandelowski (1993), Morse (1994) and Angen (2000) warn of critical problems with this tactic as the member(s) with whom the data is checked can disagree, they change their minds and make differing interpretations of the data once it is written down, as if it has become a 'fixed truth'. As there was only one interview in this study and the teacher was well known to me it was deemed helpful to be able to share the information back with her in a transcribed form. In doing so, she became an active stakeholder in the research process but it was also as part of her developing an understanding of Outdoor Learning and its potential for educating her pupils.

Researcher notes:

Observational note: As we sat down, ready to start the interview a lady came into the room and asked the teacher if they were attending the meeting.

Methodological note: I don't know what the meeting was, but the teacher said she will be attending in 20 minutes, this immediately put a time limit on the interview and placed me under some pressure to conclude on time.

Theoretical note: Within the constraints of the school setting; the timing of the school day, the teacher's interactions with the class and now staff meetings, I wonder if there is another way of obtaining some further thoughts and responses from the teacher. Member checking the transcribed data from the interview seems a good thing in this instance which could come with an invite for her to really add in any further context she feels is important, using the transcribed data as a prompt. This could include examples of work, directives in education (National Curriculum), or personal inspirations of what she might attempt in the future.

Interview transcription table [excerpt 1]

Speakers: researcher/teacher Transcript verbatim	**Non-verbal body language**	**Themes and critique**
Researcher: Ok so overall what did you think of the day?		
Teacher: *Er, I think the day was really good for engaging the children and they learnt a lot for their… without actually realising that they were learning*	Sitting on the chair, arms and legs folded, seems a little anxious	Engagement: Throughout the day, it was mentioned a lot that the pupils did not realise they were participating in Maths, English and Science, as they were so engaged within the activity.
Researcher: Erm, when you were observing today, is there anything that stood out?		
Teacher: *I think how many of the children were engaged and how independent they were during it and that, the fact the when they made mistakes they didn't mind about it, whereas usually in the classroom there's… although we always have it doesn't matter, your learning from them. They do focus on their mistakes and become despondent a lot more quickly than they did, for the fact they didn't really know what they were doing they just… especially area and perimeter they just had a go, whereas in class they'd be like 'I don't know' and wouldn't even pick up a pencil. Because it was active there was something going on, it wasn't… there wasn't such a barrier to them, it's all let's have a go nobody can see me making a mistake.*	Laid back in chair, using hands to communicate	Key themes of the day: It was good to identify the teacher's opinion as they identified that the pupils were engaged and managed to work independently. From the researcher view, they have no classroom experience with the class to compare it to. It was interesting to hear that pupils would give up easily in the classroom when they felt they couldn't do the tasks, however today for example the class had not learnt about area and perimeter before and the whole class was engaged and just gave it a go. Could this be due to them not understanding it was maths? There were no barriers to them learning, this was an odd outcome. This suggests that the pupils worry about peer views if they go wrong.

Figure 16: Extract from teacher interview transcript

As the interview started the teacher's arms and legs were folded, a sign of closed body language, which could indicate nerves or anxiety. However, the teacher acknowledged pupils' engagement and independent learning as positive outcomes of the day. Interestingly it was also commented that she felt the pupils did not realise that they were learning. Although this was not an intentional outcome, the concept

of the pupils not realising they were learning was becoming a common theme. This theme has been identified in the teacher's observations, in the pupils' feedback (see figure 17) and it arose in the focus group interview as well.

Teacher observations:

Teacher: Links to curriculum - using imperative verbs without knowing. Good!

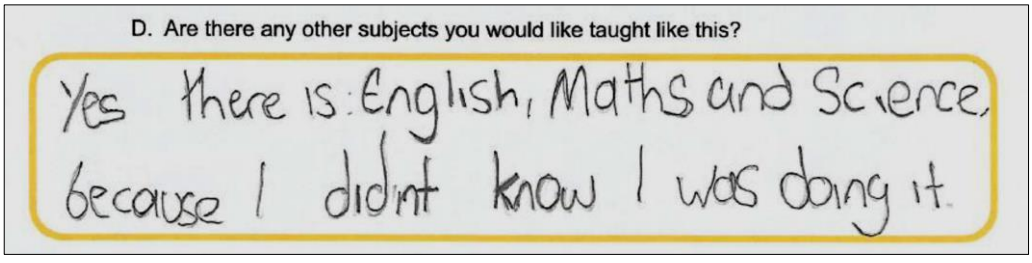


Figure17: Extract from student work booklets, task 4, question D.

A possible reason for this theme to have emerged could be that pupils associate Maths, English and Science with a classroom, work booklet and pen. That is, a stricter set of social conditions in the classroom and perhaps an emphasised seriousness in learning those subjects. The teacher commented further that some pupils focus on their mistakes and give up without trying. However the pupils who had no prior knowledge of area or perimeter in the Maths session were not phased, they all engaged with the activity. This could suggest that practically-contextualised subjects may increase pupils' engagement and have a positive impact on learning.

Unfortunately there is not enough evidence within this study to confirm that learning and retention has taken place as a result of the Outdoor Learning day. However, in contrast, my presence may have affected the pupils' motivation and engagement to get involved, although when the teacher taught half of the class during the Science experiment the pupils' engagement remained the same or even increased. The interview allowed the teacher to make comparisons between classroom learning and LOtC ideas on which, so far, the teacher has identified positive aspects of Outdoor Learning, which shows an encouraging perspective towards LOtC.

Interview transcription table [excerpt 2]

Speakers: researcher/teacher Transcript verbatim	**Non-verbal body language**	**Themes and critique**
Researcher: Ok erm, so would you say like you, your confidence in that area or was probably low or do you think that you had…		
Teacher: *Yeah I think my confidence in being able to plan a session like that, I think if someone gave me a plan and said this is what you're doing run it, I'd be absolutely fine with it. It's the thinking about the planning and what could go wrong, that… but that's the massive thing about the time constraints, especially when you're planning, because we teach five lessons a day its, and English and Maths is very... there's so much we have to… content, we have to get through. The progress has to be really, really fast and they could have, not made more progress but, there was no evidence at the end of it really other than some pictures, I've got some photos and so it's not.. Which I think is a shame now because like... we… were so 'you have to make this much progress and we have to see this, and it has to be in your book and you have to do a SATS question'. Whereas, it should be more at their child led pace which is was today, but it doesn't fit with the year six way, that we have to teach according to getting the data.*	Sat forwards, looked disappointed when talking, due to context	Confidence: Here the teacher has identified that they had more confidence which was one of their barriers that came out in the questionnaire in the morning. This showed that their confidence was based on knowledge of what to do, which the LOtC organisation can provide. Interestingly, it had been acknowledged that the teacher feels LOtC is beneficial as it is pupils-led paced, however their main barriers are having to provide evidence of learning, progress has to be fast, and to get them ready for their SAT's. The most crucial bit of information here is that the pupils' work had to be in a book and they have to teach according to getting the data. It was clear that the teacher felt disappointed saying that, however it shows there are great strains on teachers, which in this study is the main barrier to LOtC.
Researcher: Ok, erm, er, before we started this morning, do you feel any differently than you did before the day started?		This question was aimed at identifying perception change throughout the day.
Teacher: *Erm, I was, I was kind of intrigued because I just couldn't see how we were ever going, how you were going to teach through, I could see instructions, because we'd done*	Comfortable now, discussion is flowing.	Perception: The teachers perception in the morning seemed a bit all over the place, as they didn't really know what to expect. However after seeing the session,

it at the activity centre, but I couldn't see how other things were gonna be taught through a tent but, now I feel like oh that's a really good idea and it, its something that is really simple but easily done to make connections.		they seemed a lot more interested and that LOtC was actually a good way to link the national curriculum to practical activities but in a simplistic way.

Figure 17: Extract from teacher interview transcript

As the interview progressed, the matter of the teacher's unsure confidence to facilitate outdoor learning cropped up. Although the teacher acknowledged she would have difficulties planning the session at first, she said she would be able to facilitate aspects LOtC in the future. The questionnaire extract below comments on having insufficient experience and her confidence depended on the topic, whereas after the LOtC day it depended on a having pre-planned session to work from. Fortunately, The Council for LOtC (2016) provides courses and session plans for teachers which include all curriculum areas. These may be a solution to get LOtC started in the school. This theme only emerged after I had started to transcribe and analyse the data. Therefore a follow up interview would have been beneficial, allowing me to probe further into areas identified after all of the data had been collected and analysed.

Extract from questionnaire:

Question Seven: Do you feel you have enough experience to run outdoor learning within the school grounds?

Teacher: Not really, think it depends on the topic and confidence.

So far in the study the teacher's perception towards LOtC has been positive, however, the interview has identified critical barriers which limit the teacher from facilitating outdoor learning. The teacher expressed the constraints they are under to teach five lessons a day, constantly provide evidence of learning and to prepare pupils for their end of year exams. It was evident in her voice that she was disappointed, that learning should be at a child-led pace just as the LOtC day was, which is not always possible due to demands for accountability in teaching.

The interview has given greater depth into understanding the difficulties that teacher faces. As mentioned above The Council for LOtC can help the teacher's confidence and ability to create session plans for outdoor learning. However this study has begun to reveal the teacher's perception that there is an institutional lack of freedom to construct their teaching due to expectations, perhaps by Heads, Governors, Inspectors or parents to follow the prescribed, appropriate, acceptable or correct way of teaching. As this study has only gathered data from one teacher, the findings cannot be generalised to other teachers or schools.. However, future

research could question if this is a common feeling among teachers, and using different Year groups across all Key Stages (1,2,3,4) of schooling could probe for levels of compromise in pedagogic freedoms against expected classroom practices by the employing Schools or Academies.

Interview transcription table [excerpt 3]

Speakers: researcher/teacher Transcript verbatim	**Non-verbal body language**	**Themes and critique**
Researcher: Erm, do you think it [Outdoor Learning] should be something that teachers learn maybe in their training or something like that to run session outside maybe or...		
Teacher: *Yeah I think so, I think it would be a good idea. We did when I was on my PGCE, we had like an active maths session, but that was only incorporating PE into things, which I tried once and it went terribly, so I think yeah it would be something that would be good to get more people involved in it, but also get you to have a focused task to do, so people could get ideas off each other cos just telling you… its more about the experience in actually learning from your mistakes of how it works.*	Open body language, seems comfortable talking.	Integrated into teaching qualifications: Interestingly the teacher bought up a past experience within their PGCE, incorporating maths into PE, and it went terribly wrong. However they previously mentioned in Line no. 14 (See appendix 12) that they would probably give LOtC a go and if it went wrong 'blag it'. Therefore this negative experience identified within their PGCE may have affected their motivation and interest to facilitate outdoor learning.
Researcher: Yeah		
Teacher: *So today I think I'd know how, from today, from watching you do it and participating with it, I would be more confident going, right we could do this, and adapting it just because I've got the experience of running it. Whereas when you go into it, you know what to do, it's the running it that's issue for me***.**		It was really nice to hear that the teacher feels more confident and that including them in the facilitation of the Science session would have such a positive impact. However the barriers are still an issue.
Researcher: Yeah		
Teacher: *And because you're letting control of the kids, and its valuable time, and if it goes wrong then, its a wasted lesson…*		I feel this comment really stresses the pressure teachers are under to 'tick all the boxes' and make sure the pupils are making progress.

Researcher: Yeah, ok, Erm do you have any other comments or questions you would like to ask or?		
Teacher: *Erm no not really, I think it was just really good seeing all the kids all so engaged and like, well I have written things down as well. The fact that the boys in the class are usually the ones that don't participate as much, and they don't, they aren't the higher achievers, its always the girls that are doing really well, and it was the boys who were more successful during the day, especially with the tent building and things like that. So it was nice to see them working in different groups and them achieving as much as the girls, and the girls to have a bit of a struggle, so maybe its a really good thing in the future to do so that they have those different experiences and positive feelings.*		I think these comments summarises their perception at the end of the day which is really positive. I feel like the teacher did not expect the session to be what it was, which is good in a way as I feel it has shown them something new. It was good to hear that the session challenged the pupils that usually work well in the classroom and got others engaged who are not normally focused. I think this was a positive outcome of the session and that changing the learning environment or making it more practical had clearly catered to the different learning styles of the pupils.

Figure 18: Extract from teacher interview transcript

Figure 18 shows how the issue of personal confidence again emerged as the teacher discussed her participating in outdoor learning session [Science]. However while speaking they stumble and remember the issues they face in order to run LOtC. The teacher's body language seemed more open and comfortable as they laugh while explaining an experience that went 'terribly wrong' when incorporating Physical Education into Maths. Bad experiences may have influenced her perception and confidence for running Outdoor Learning activities. Previously the teacher had mentioned that if they were to facilitate LOtC, they would just 'give it a go' and if it went wrong they would never do it again, therefore suggesting that a negative experience could easily affect her motivation and dismiss LOtC completely as a viable pedagogy.

Teacher observation:

Teacher: Boys did much better than girls, can identify the parts better, and more logical. Girls usually succeed more in the classroom, a nice change to see.

The teacher's response in this observation note indicates that the boys were more actively engaged in the Outdoor Learning tasks than the girls, whereas in the

classroom it is usually the other way round. Again this is an area which only the teacher would be able to identify. Children learn in different ways and as Outdoor Learning generally consists of a more active approach, this could suggest that the boys are more inclined towards kinaesthetic learning (Christian and Kearney, 2015). The interview also revealed that the teacher felt Outdoor Learning should be incorporated within Teacher Training courses, although there was no scope to explore this further to understand her reasoning why. Such an avenue of questioning could ask whether she feels all teachers experience the same constraints as she does in the study school to facilitate Outdoor Learning. The lack of probing is due to my inexperience at interviewing.

Researcher note:

Methodological note: I was nervous when conducting the interview which made it hard to probe further into the teachers responses. I would just move on to the next question.

My inexperience is limiting this data opportunity… confidence!

The lack of experience at running interviews limited the potential depth of response I could produce in the data but I was beginning to see potential for further research from post-event analysis. Due inexperience in the field, I did not analyse the findings from the questionnaire and observations before conducting the interview. Time did not permit it on the day but as a novice researcher this did not seem to be an issue, however with further reflection on the research process, I could have gathered much stronger interview data by delving deeper into findings from prior data as I collected it. This has left me a curiosity and many questions towards gaining a better understanding of teaching and the Outdoor Learning phenomenon.

After school club

To recap: The phenomenological study aimed to provide a series of LOtC lessons that mitigated barriers associated with Outdoor Learning in a school setting, from a classroom teacher's perspective. Initial literature research highlighted that a teacher's perception of risk (Fisher, 2010), and an unwillingness to organise out of school visits (Humberstone and Stan, 2009) were barriers to LOtC and in some cases, weak connections to the curriculum were cited (Dyment, 2005). Conducting an Outdoor Learning day within the grounds of a school was aimed to limit these barriers or negative perceptions. Sessions were designed incorporating the National Curriculum core subjects and taught to a Key Stage 2: Year 6 class. Data was gathered utilising a host of qualitative methods to capture the teacher's perspective on this LOtC initiative. Although the research has acknowledged some positive discoveries, the study's limitations may affect the accuracy of the scene it describes, therefore limiting any claims that can made through the data.

The study captured the teacher's perspective using a questionnaire, observations a focus group with four pupils and an interview. The teacher's observations contributed to the ongoing 'story' of the day as it unfolded and this report has been structured to mirror that reality. 'Researcher notes' were also incorporated, providing self-reflective critique of actions in the field. The questionnaire identified that the teacher had a positive outlook on Outdoor Learning, however other issues arose such as their confidence to facilitate LOtC. Some questions were ambiguous for the teacher to interpret so 'best guess' answers may have impacted upon the data. As a result two questionnaires administered at different stages with some interim analysis may have limited the issue of mis-interpretation.

Being the researcher and having taught the sessions, it was acknowledged that my ability (inexperience) to facilitate the day may have impacted the teacher's perception of LOtC. Therefore gaining classroom experience would have helped to more effectively incorporate basic literacy skills in to the day. Also due to having no prior knowledge of the group it meant that I was unable to differentiate for different ability levels or pupils with Special Educational Needs, identifying the importance of gaining information on the class prior to the data collection LOtC event.

The focus group recognised the pupils' enjoyment throughout the building of the tents, and that the pupils felt they paid more attention when working outside of the classroom. The focus group also provided complications for the researcher as the pupils gave mainly one-word answers which limited the free flow of conversation resulting in what turned into a question and answer session. In turn this affected the teacher's understanding of the pupils' thoughts towards the day. As a novice researcher, conducting a focus group with young pupils presented great difficulties. Further research surrounding focus groups with children suggested useful tactics, which may have contributed to the effectiveness of the discussion.

To conclude: Overall, the teacher's perspective towards LOtC was very positive, however there are significant barriers which limit the teacher's freedom to facilitate Outdoor Learning. These are to do with self-confidence and expertise in a Curriculum subject area and also, external factors such as institutional pressures or expectations to teach in an 'acceptable way'.

The research was concerned primarily with gaining the teacher's perspective about a different way of teaching, but being a novice researcher affected the depth and detail that could be gathered within the interview, as nerves limited my confidence to probe further. With regards to conducting the same study again, the methods used would probably remain the same, however I feel they were not utilised to their full potential due my lack of experience in conducting research. Taking into

account the difficulties and possible solutions identified within this study, further research points to some interesting scope for using Outdoor Learning in schools.

The phenomenological approach to this study establishes its appearance and identity as report – through the school day. The step by step layout has allowed me to represent the teacher's and pupils' views towards the phenomenon in chronological order, but also recognising and critiquing my input throughout. I have realised I have a voice through my study as well as those who contributed to it. This has helped me to understand how I have affected the study with my own biases and preferences, allowing me to reflect on how the research might have been conducted differently at each point. For reflexivity in research, this study has provided a '3-way' mirror for the teacher, the researcher and the pupils to look at each other through the lens of an Outdoor Learning experience. It seems clear from the report that we may have all taken lessons from 'Learning in Tent'.

References

Allen Collinson, J. and Hockey, J. (2005) Autoethnography: self-indulgence or rigorous methodology? (Chapter 10: 187-202). In, McNamee, M. (Ed.) *Philosophy and the sciences of exercise, health and sport*. Routledge, Abingdon.

Angen, M.J. (2000) Evaluating interpretive inquiry: Reviewing the validity debate and opening the dialogue. *Qualitative Health Research*, 10, 3, 378-395.

Berns, R. and Erickson, P. (2001) Contextual teaching and learning: Preparing pupils for the new economy. *The Highlight Zone: Research at Work*, 5, 1, 2-9.

Bloomer, M., Cross, W., Endacott, R., O'Connor, M. and Moss, C. (2012) Qualitative observation in a clinical setting. *Nursing and Health Sciences*, 14, 1, 25-31.

Boric, E. and Skugor, A. (2014) Achieving pupils' competencies through research-based outdoor science teaching. *Croatian Journal of Education*, 16, 1, 149-164.

Bryman, A., Bresnen, M., Beardsworth, A. and Keil, T. (1988) Qualitative research and the study of leadership. *Human Relations*, 41, 1, 13-29.

Carr, L. (1994) The strengths and weaknesses of quantitative and qualitative research: what method for nursing? *Journal of Advanced Nursing*, 20, 4, 716-721.

Children, Schools and Families Committee (2010) *Transforming education outside the classroom*. House of Commons, The Stationery Office: London [online]. Available at: www.publications.parliament.uk/pa/cm200910/cmselect/cmchilsch/418/418.pdf (Accessed 8th July 2016).

Christian, E. and Kearney, P. (2015) *Coaching tools for adventure sports. Adventure Sports Coaching*. Routledge, London.

Christidou, V., Tsevreni, I., Epitropou, M. and Kittas, C. (2013) Exploring primary children's views and experiences of the school ground: The case of a Greek school. *International Journal of Environmental and Science Education*, 8, 1, 59-83.

Council for Learning Outside the Classroom. (2008) School grounds and immediate surroundings [online]. Available at: http://www.lotc.org.uk/what-is-lotc/where-lotc/school-grounds-immediate-surroundings/ (Accessed: 29th January 2016).

Council for Learning Outside the Classroom. (2016) History [online]. Available at: http://www.lotc.org.uk/about/history/ (Accessed: 4th February 2016).

Couper, M. (2000) A review of issues/approaches. *Public Opinion Quarterly*, 64, 4, 464-494.

Cox, S. (2008) Differentiated instruction in the elementary classroom. *Education Digest: Essential Readings Condensed for Quick Review*, 73, 9, 52-54.

Creswell, J.W. (1998) *Qualitative inquiry and research design choosing among five traditions.* Sage Publications, Thousand Oaks, CA.

Creswell, J. (2014) *Research design* (4th ed.) Sage, Thousand Oaks. CA.

Cummings, K. (2011) *Nonverbal communication and first impressions* [online]. Available at: https://etd.ohiolink.edu/rws_etd/document/get/ksuhonors1305161866/inline (Acc. 22.3.2016)

Denscombe, M. (2007) *The good research guide: for small-scale social research projects*. Open University Press: Buckingham.

Department of Education. (2014) The National Curriculum [online]. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335116/Master_final_national_curriculum_220714.pdf (Accessed: 12th February 2016).

Department for Children, Schools and Families. (2006) Learning outside the classroom manifesto. DfES Publications, HMSO, London [online]. Available at: www.lotc.org.uk/wp-content/uploads/2011/03/G1.-LOtC-Manifesto.pdf (Accessed 8th July 2016).

Dillon, J. (2005) *Engaging and learning with the outdoors: The final report of the outdoor classroom in a rural context action research project*. National Foundation for Educational Research in England and Wales. HMSO, London.

Dowling, M. (2009) *Young children's personal, social and emotional development*. Sage, UK

Drever, E. (1997) *Using semi-structured interviews in small-scale research*. The Scottish Council for Research in Education: Edinburgh.

Dyment, J. E. (2005) Green school grounds as sites for outdoor learning - barriers and opportunities. *International Research Geographical Environmental Education*, 14, 1, 28-45.

Eagleton, T. (1983) *Literary theory: An introduction*. Basil Blackwell: Oxford.

Education and Skills Committee (2005) *Education Outside the Classroom: Second Report of Session* 2004-05. The Stationery Office: London.

Fisher, J. (2001) The demise of fieldwork as an integral part of science education in United Kingdom schools: a victim of cultural change and political pressure? *Pedagogy, Culture and Society*, 9, 1, 75-96.

Fouche, F. (1993) *Phenomenological theory of human science. conceptions of social inquiry.* Human Science Research Council, Pretoria, South Africa.

Gill, P., Stewart, K., Treasure, E. and Chadwick, B. (2008) Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal*, 204, 6, 291-295.

Gill, T. (2009) *No fear: growing up in a risk-adverse society.* Calouste Foundation, London.

Geary, S. (2016) *PGCE Primary Science* [online]. Available at: http://socialsciences.exeter.ac.uk/education/pgce/primarypgce/specialisms/science/ (Accessed: 22nd February 2016).

Hamilton, N. and Palmer, C. (2014) Learning to ride a bike: a qualitative study of the cycling Bikeability programme. *Journal of Qualitative Research in Sports Studies*, 8, 1, 17-88.

House of Commons (2005) *Education outside the classroom: Select Committee on Education and Skills Second Report*. Stationery Office: London.

Humberstone, B. and Stan, I. (2009) Well-being and outdoor pedagogies in schooling: the nexus of well-being and safety. *Australian Journal of Outdoor Education*, 13, 2, 24-32.

Hycner, R.H. (1985) Some guidelines for the phenomenological analysis of interview data. *Human Studies*, 8, 3, 279-303.

Kaplowitz, M. (2000) Statistical analysis of sensitive topics in group and individual interviews. *Quality and Quantity*, 34, 4, 419-431.

Krueger, R. (1997) *Analysing and reporting focus group results*. Sage Publications, London.

Kruger, D. (1988) *An introduction to phenomenological psychology*. Juta, Cape Town, SA.

Learning and Teaching Scotland (2010) *Curriculum for excellence through outdoor learning* [online]. Available at: https://www.educationscotland.gov.uk/Images/cfeoutdoorlearningfinal_tcm4-596061.pdf (Accessed: 9th March 2016).

Leedy, P. and Ormrod, J. (2005) *Practical research: planning and design*. Prentice Hall, NJ.

Legard, R., Keegan, J. and Ward, K. (2003) *In-depth interviews. Qualitative research practice: A guide for social science pupils and researcher*s. Sage, London.

Lincoln, Y.S. and Guba, E.G. (1985) *Naturalistic Inquiry.* Sage Pubs. Newbury Park, CA.

Malone, K. (2008) *Every experience matters: an evidence based research report.* Report commissioned by Farming and Countryside Education for UK: Wollongong.

Matthews, B. and Ross, L. (2010) *Research methods: a guide for the social sciences.* Pearson Longman: London.

Mauthner, M. (1997) Methodological aspects of collecting data from children: Lessons from three research projects. *Children and Society*, 11, 16-28.

Maxwell, J.A. (2005) *Qualitative research design: An interactive approach* (2nd ed.) Sage, Thousand Oaks, CA.

Morse, J. (1994) Designing funded qualitative research (pp. 220-235). In, Denzin, N. and Lincoln, Y. (Eds.) *Handbook of qualitative research*. Sage Publications, Thousand Oaks, CA

Morgan, M., Gibbs, S., Maxwell, K. and Britten, N. (2002) Hearing children's voices: methodological issues in conducting focus groups with children aged 7–11 years. *Qualitative Research*, 2, 1, 5–20.

Mulhall, A. (2003) In the field: notes on observation in qualitative research. *Journal of Advanced Nursing*, 41, 3, 306-313.

Natural England (2009) *Childhood and nature: A survey on changing relationships with nature across generations*. England Marketing: Cambridgeshire.

Patton, M. (1990) *Qualitative evaluation and research methods*. Sage, Thousand Oaks, CA.

Porcellato, L., Dughill, L. and Pringett, J. (2002) Using focus groups to explore children's perceptions of smoking: Reflections on practice. *Health Education*, 106, 6, 310–320.

Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M., Sanders, D. and Benefield, P. (2004) *A review of research on outdoor learning*. Field Studies Council: Preston Mountford.

Sandelowski, M. (1986) The problem of rigor in qualitative research. *Advances in Nursing Science*, 8, 3, 27-37.

Sandelowski, M. (1993) Rigor or rigor mortis: The problem of rigor in qualitative research revisited. *Advances in Nursing Science,* 16, 2, 1-8.

Schatzman, L. and Strauss, A. (1973) *Field research: Strategies for a natural sociology*. Prentice Hall: New Jersey.

Silverman, D (2007) *A very short, fairly interesting and reasonably cheap book about qualitative research.* Sage Publications, London.

Wagner, C. (2000) Planning school grounds for outdoor learning [online]. Available at: http://www.promiseofplace.org/research_attachments/schoolyard.pdf (Accessed: 29.1.2016).

Waite, S. (2010) Losing our way? The downward path for outdoor learning for children aged 2–11 years. *Journal of Adventure Education and Outdoor Learning*, 10, 2, 111-126.

Walman, J. and Kruger, S. (1999) *Research methodology for the business and administrative sciences*. International Thompson, Johannesburg, South Africa.

Woodhouse, J. and Knapp, C. (2001) Place-based curriculum and instruction: outdoor and environmental education approaches. *Thresholds in Education,* 27, 3/4, 31-35.

Wyatt, M. (2015) Using qualitative research methods to assess the degree of fit between teachers' reported self-efficacy beliefs and their practical knowledge during teacher education. *Australian Journal of Teacher Education,* 40, 1, 7.

Yilmaz, k. (2013) Comparison of quantitative and qualitative research traditions: epistemological, theoretical, and methodological differences. *European Journal of Education,* 48, 2, 311-325.

JQRSS Author Profiles

Aimee Busko[1] graduated with a 1st class BA (Hons) Adventure Sports Coaching in 2016. She takes a keen interest in matters to do with Learning Outside the Classroom and wishes to develop her teaching skills in The Outdoors by following her interests at Post-grad level.

Clive Palmer[2] is a Senior Lecturer in Outdoor Education and Sports Coaching within the School of Sport and Wellbeing, University of Central Lancashire, Preston, UK.

Reviewer Comments

The trialling of Outdoor Learning across key subjects in Primary school seems to be a winning strategy for raising standards in education. This research establishes a precedent for practical and creative learning in core subjects that can struggle to engage with pupils. It demonstrates the potential for how good learning and teaching can be if considered in this refreshing way. Using the Outdoors 'in the classroom' seems to create an affinity with a subject through an ability to control, or play with things within the topic e.g. 'look what we did today in Science' a child might say proudly. This kind of stimulus can generate greater interest and ownership of their learning and subjects; through the applied outdoor tasks, pupils seeing themselves as scientists, mathematicians or writers. With minimal demands upon teacher training or resources, this Outdoor dimension to school-based teaching may empower pupils and staff to find practical relevance in their daily work but also establishing potential for creative thinking and having lots of fun in learning and teaching.

Appendix 1

Curriculum outline: presented to the study school prior to the LOtC day.

Subject	Aspects of the Year 6, KS2 core National Curriculum to be taught	How the core national curriculum can be facilitated throughout the 'Learning in a Tent' activity.
English	Encourage the use of capital letters, dashes, question marks, brackets, full stops, commas and exclamation marks. Link paragraphs using word such as firstly, then, secondly, after and later. Assessing the effectiveness of their own and others work. Using appropriate structure.	Putting up the tent, and creating written instructions. Task: Students are to individually write instructions for the tent, and each instruction will be put on an individual sticky note. Once they have finished, instructions will be put in a random order and given to another group. Aim: Promote students understanding of using rich connectives and punctuation, so that the order can be distinguished.
Maths	Rounding up numbers to the nearest 10, 100, 1000, 10000 and 100000. Calculate perimeter, area and volume on rectangles and squares using (cm2, m2 and cm3). Convert between different metric measures e.g. cm and metres. Scaling Draw 2D shapes giving dimensions and angles. Recognise, describe and build simple 3D shapes.	Give students a work sheet that requires them to find out the area, volume and perimeter of the tent. Task. Students will measure the tent, identifying the area, volume and perimeter. A Classroom task will consist of converting between different metric measures and providing a scale drawing.
Science	Pupils should make conclusions drawing on observations and data, using evidence to back up their knowledge and findings. Provide reasoning into the use of every day materials. Record results using scientific diagrams, labels, keys, tables, scatter graphs, bar and line graphs.	Engage students in a conversation about the use of different fabrics of a tent and make connections to other everyday items. Task. Students will take part in an experiment to identify which fabric allows the least amount of water through. Students will draw and label a diagram representing the study and convey results using a bar graph. Students will generate a hypothesis, method and conclusion.

Appendix 2

Lesson plan: for the day presented to the study school prior to the LOtC day.

Learning in a Tent			
Activity	**Time**	**Instructor activity**	**Students activity**
Briefing	10 mins	Give safety briefing and explain the day's activity.	Listening
Teacher's activity Throughout the whole day, the teacher will be observing / evaluating the activities and writing notes.			
ENGLISH: Tent instructions - Put up tent - Write 'post-it' instructions - Group discussion	40-50 mins 9.30-10.35	Allow students to work out how to put the tent up on their own. Walk around the class making sure students are being sensible and safe.	The students will be working out how to pitch the tent. In their groups half of them will be putting up the tent, and the other will be writing their own instructions.
Pupils: Once they have finished, the class will swap instructions and the other group is to work out the order of their instructions. The aim of this task is to get them to think about how connectives may have made this process easier.			
MATHS: Area, volume and perimeter. - Answer questions in the work booklet. - Measure the volume, area and perimeter of the tent. - Draw a scale drawing in work booklet. Extra activity: Put up a four man tent	60 mins 10.50-12.05 15 mins	Give students a work sheet that requires them to find out the area, volume and perimeter of the tent. -Supply measuring tools. -Walk round and offer help. Supervise the group and explain that the group who wrote the instructions last will help put up the tent while the others write the instructions in the booklet.	- Students will be answering questions in the book. -Using tape measures to measure the tents. - Working in the booklet again to produce a scale size drawing of the tent. - Putting up the tent.
SCIENCE: experiment - Discussion Take down tent	90 mins 1pm - 2.30 20 mins	Involve students in a group discussion about the materials of the tent. - Give out equipment: Fabrics Measuring cup Elastic bands - Make sure students are using equipment appropriately. Remind students about safety, help take down tents.	- What are they? - What everyday objects have similar fabrics? - Why have these fabrics been used? -Students will test how much water the fabric lets through, following on from their discussion. -Student will create a hypotheses, method and conclusion. Taking down tents

Appendix 3

Permissions:

Letter to parents (information sheet) and parent consent for focus group sent to the Head Teacher at the study school prior to the research visit/Outdoor Learning day.

Letter sent to study school: December 2015

Anticipated visit: January/February 2016

Dear Parent/Guardian,

This letter is to inform you of a Learning Outside the Classroom Day (LOtC) at your child's school which requires your consent for the their participation. The activity will involve putting up small tents as a stimulus for working in Maths, English and Science. The day will be run by a student from The University of Central Lancashire as a means to collect data for her degree research. The student is first aid trained and holds a current DBS check.

The day will be focused on teaching the core National Curriculum outside of the classroom, however due to the time of year the session may be run in the sports hall. As this session is part of a research project, there is also an opportunity for your child to take part in a focus group, which is a form of group interview with children – in the presence of their normal classroom teacher. The focus group will consist of an informal chat around their thoughts towards learning outside the classroom. Other ethical considerations for the research include:

- Any work from the child will be anonymised in reporting
- A teacher will be present at all times
- At any given stage the child may withdraw from the focus group, and will be notified of this beforehand.

Yours sincerely,

Aimee Busko

Aimee Busko: Final Year Student: BA Honours, Adventure Sports Coaching
University of Central Lancashire, Preston, UK.

✂……

Name of child: ……

I do/do not give permission for my child to take part in the LOtC day at school.

I do/do not give permission for my child to take part in the focus group.

Parent/Guardian signature: ……..

Date: …….

Appendix 4

Project overview/informed consent form: for the teacher at the study school.

Date of visit to the study school: 27th January 2016
Working title/area of study: *Learning in a Tent: A Teacher's Perspective into Learning Outside the Classroom - teaching English Maths Science in the National Curriculum.*
Expectation/Duration/timing: 15 minutes face to face at the end of the school day.
Name of Researcher: Aimee Busko (Final Year Student: BA Hons, Adventure Sports Coaching, University of Central Lancashire, Preston)

Dear interviewee,
A key feature of this study is teacher perceptions of Outdoor Learning and you are invited to contribute your views in a face-to-face interview. This will be recorded to help the researcher understand and theorise about the events observed during the LOtC day. The interview data will be transcribed and analysed looking for initial themes emerging, all of which will be shared back with you for 'member checking', a form of data verification for accuracy, authenticity and any additional thoughts or comments you may wish to add.

This interview data complements that of the pre-event questionnaire, the class observations, the pupils' workbooks and the focus group with pupils. Your participation in the 'teacher interview' is voluntary and you may withdraw at any time. I thank you in advance for your valuable comments and sharing your time to support this research.

Aimee Busko

1. I have had the research satisfactorily explained to me in verbal and/or written form by the researcher. **YES / NO**

2. I understand that this aspect of the research will involve one, fifteen minute (max) face-to-face interview. **YES / NO**

3. I understand that I may withdraw from this study at any time without having to give an explanation. This will not affect my future care or treatment. **YES / NO**

4. I understand that all information about me will be treated in strict confidence and that I will not be named in any written work arising from this study. **YES / NO**

5. I understand that any recorded material of me will be used solely for research purposes, will be stored securely and will not be used out of context. **YES / NO**

6. I understand that aspects of data I provide may be used in publication and that my identity will be protected/concealed/anonymised. **YES / NO**

7. I understand that you will be discussing the progress of your research with your research supervisor / tutor at University. **YES / NO**

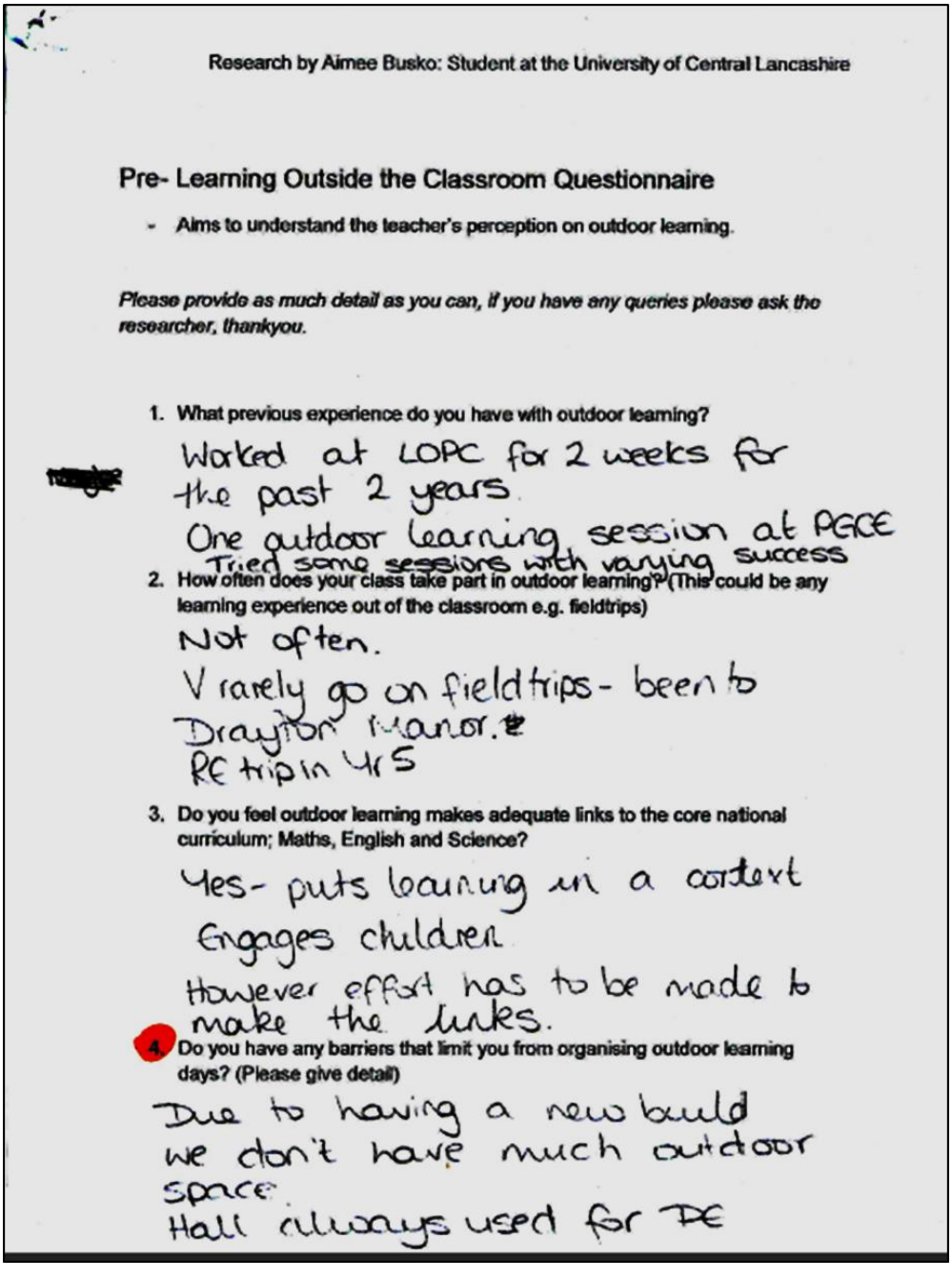
8. I freely give my consent to participate in this research study and have been given a copy of this form for my own information. **YES / NO**

Name…… Date……

Signature…….....

Appendix 5

Pre-event questionnaire: given to the teacher at the beginning of the LOtC day before the Outdoor Learning classes began.



Research by Aimee Busko: Student at the University of Central Lancashire

Pre- Learning Outside the Classroom Questionnaire

- Aims to understand the teacher's perception on outdoor learning.

Please provide as much detail as you can, if you have any queries please ask the researcher, thankyou.

1. What previous experience do you have with outdoor learning?

Worked at LOPC for 2 weeks for the past 2 years.
One outdoor learning session at PGCE
Tried some sessions with varying success

2. How often does your class take part in outdoor learning? (This could be any learning experience out of the classroom e.g. fieldtrips)

Not often.
V rarely go on fieldtrips - been to Drayton Manor.
RE trip in Yr 5

3. Do you feel outdoor learning makes adequate links to the core national curriculum; Maths, English and Science?

Yes - puts learning in a context
Engages children
However effort has to be made to make the links.

4. Do you have any barriers that limit you from organising outdoor learning days? (Please give detail)

Due to having a new build we don't have much outdoor space.
Hall always used for PE

Research by Aimee Busko: Student at the University of Central Lancashire

5. Do you think it would be beneficial if you could facilitate learning outside the classroom within the school grounds?

Yes- children would engage better & learn life skills as well as curriculum.

6. Would there be any limitations to you running outdoor learning within the school grounds?

Behaviour
Space
Equipment
Time

7. Do you feel you have enough experience to run outdoor learning within the school grounds?

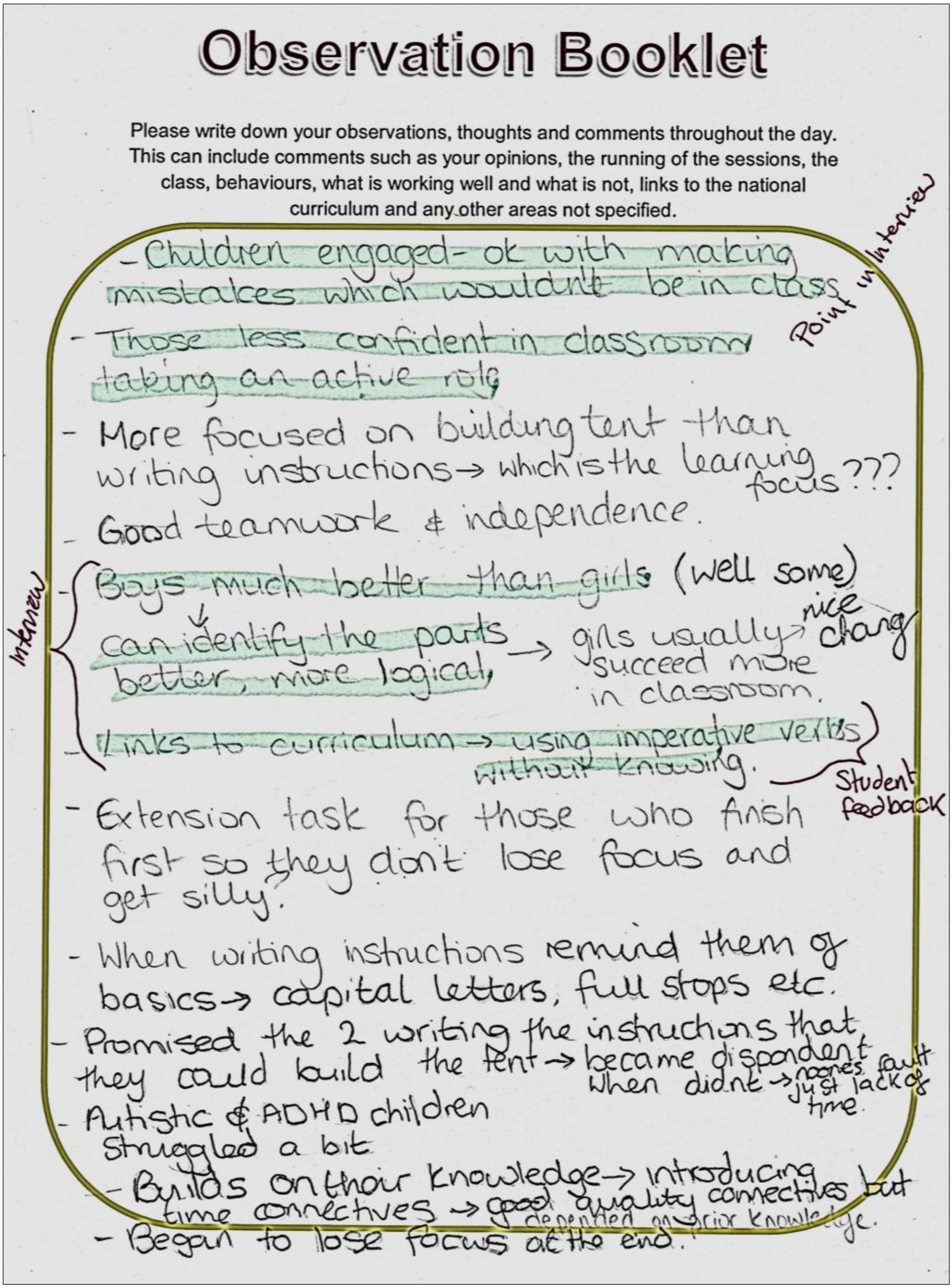
Not really, think it depends on the topic & confidence

8. What implications do you feel could be made for teachers to gain adequate experience, and confidence to facilitate outdoor learning within the school grounds?

More CPD training- ideas and experience.
Have equipment available so you can do it easily.

Appendix 6

Teacher observations: during class were aimed to gather their thoughts towards Outdoor Learning, linking directly to the focus of the study.



Observation Booklet

Please write down your observations, thoughts and comments throughout the day. This can include comments such as your opinions, the running of the sessions, the class, behaviours, what is working well and what is not, links to the national curriculum and any other areas not specified.

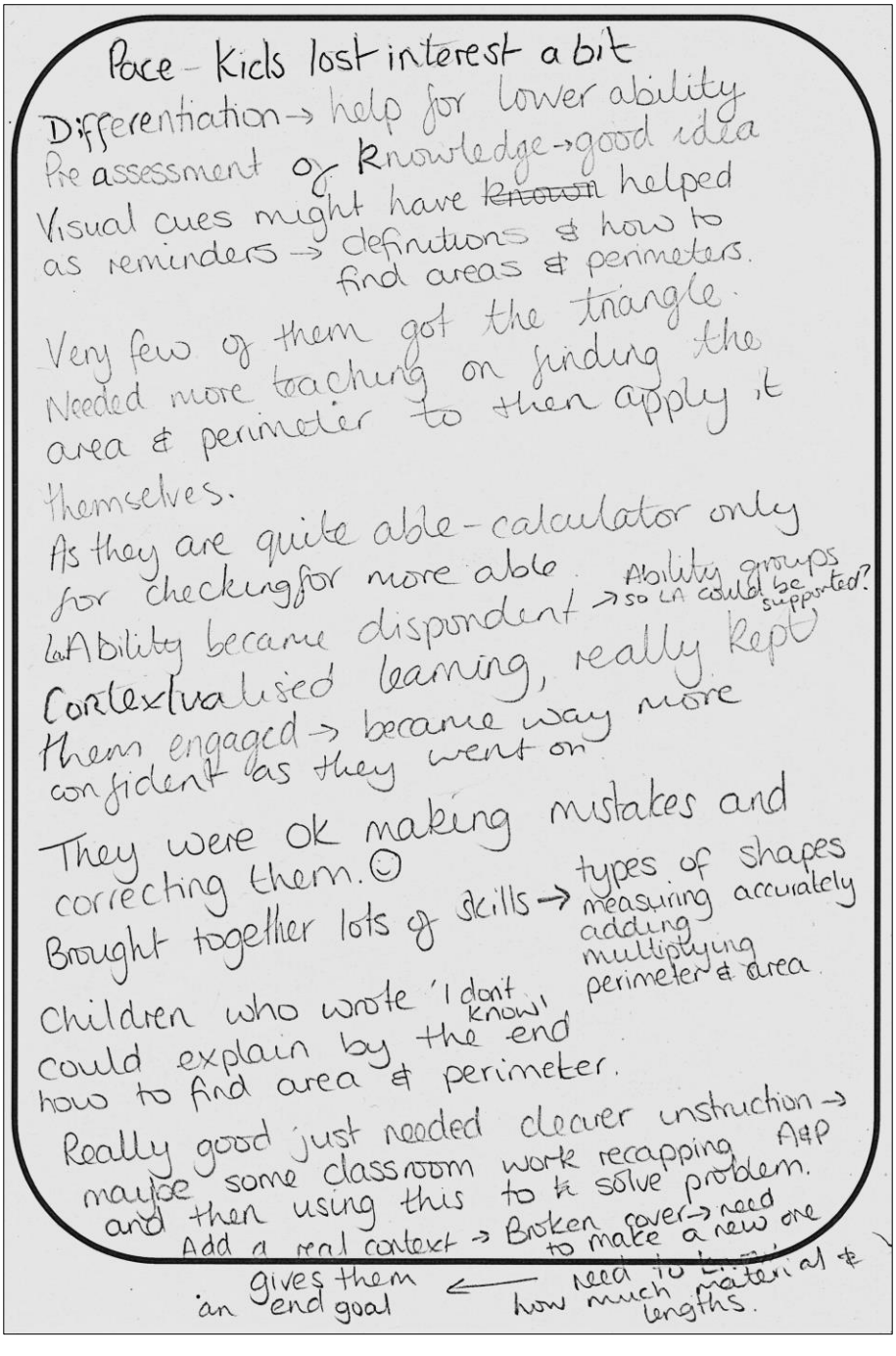
- Children engaged - ok with making mistakes which wouldn't be in class
- Those less confident in classroom taking an active role
- More focused on building tent than writing instructions → which is the learning focus???
- Good teamwork & independence.
- Boys much better than girls (well some) can identify the parts better, more logical → girls usually succeed more in classroom. → nice change
- Links to curriculum → using imperative verbs without knowing.
- Extension task for those who finish first so they don't lose focus and get silly.
- When writing instructions remind them of basics → capital letters, full stops etc.
- Promised the 2 writing the instructions that they could build the tent → became dispondent when didn't → noones fault just lack of time.
- Autistic & ADHD children struggled a bit
- Builds on their knowledge → introducing connectives but time connectives → good quality connectives depended on prior knowledge.
- Began to lose focus at the end.

Point in interview

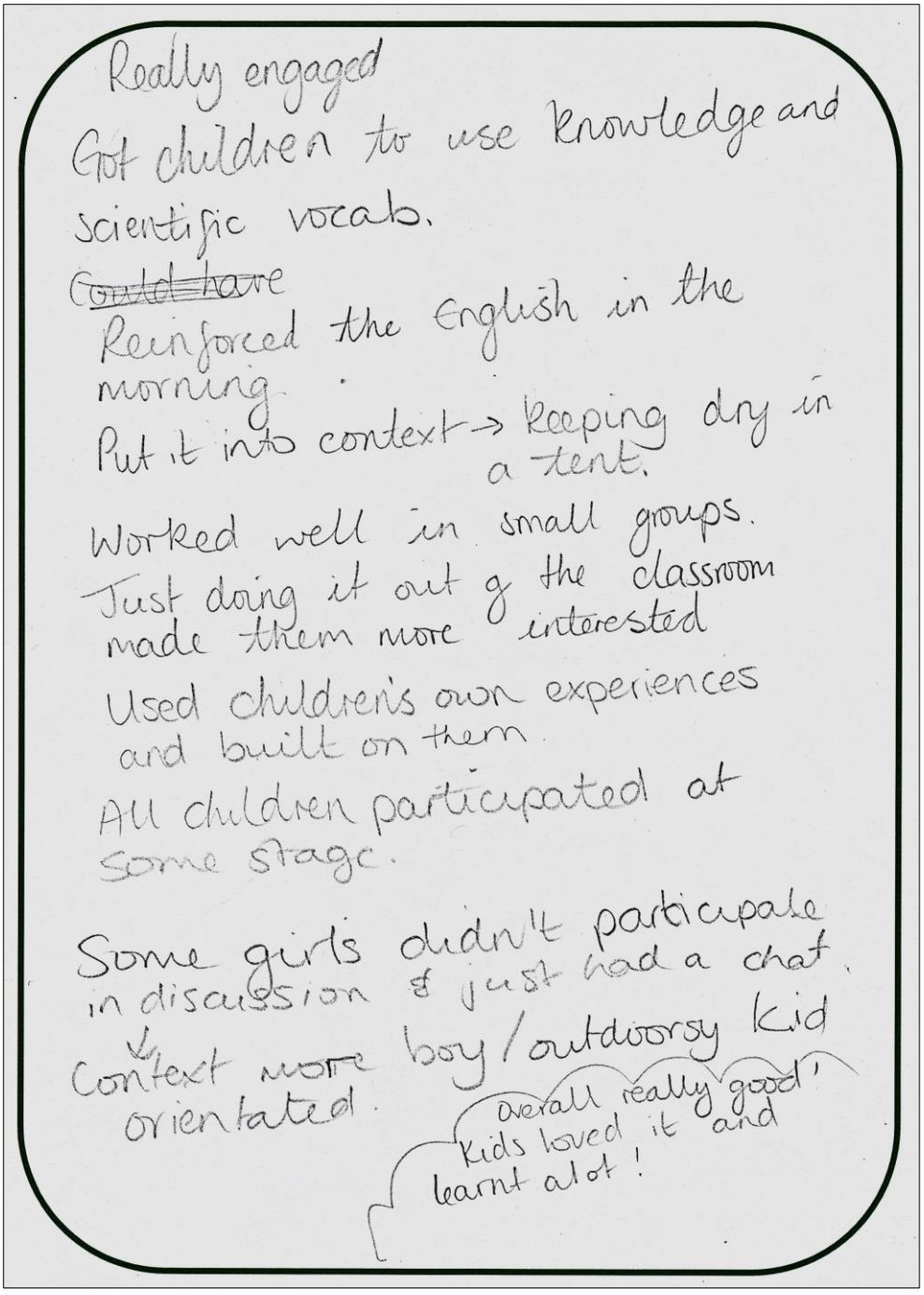
Interview

Student feedback

The purpose of the teacher observing was for them see how their class responded to LOtC, but allowing them time and space to reflect and formulate a judgement.



In turn, the teacher observations have helped tell the story of the LOtC day.

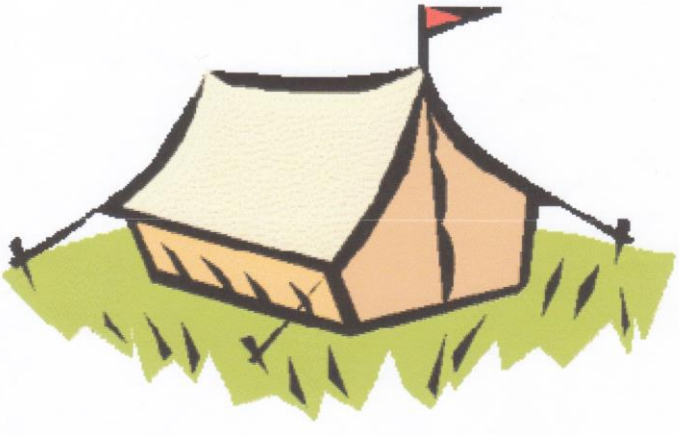


Appendix 7

LOtC work booklet: All pupils were given a work booklet for the LOtC day which was carefully structured to identify learning. Recording three tasks: English, Maths and Science. Plus a feedback sheet at the end of the booklet. (x3 in appendices)

Work Booklet

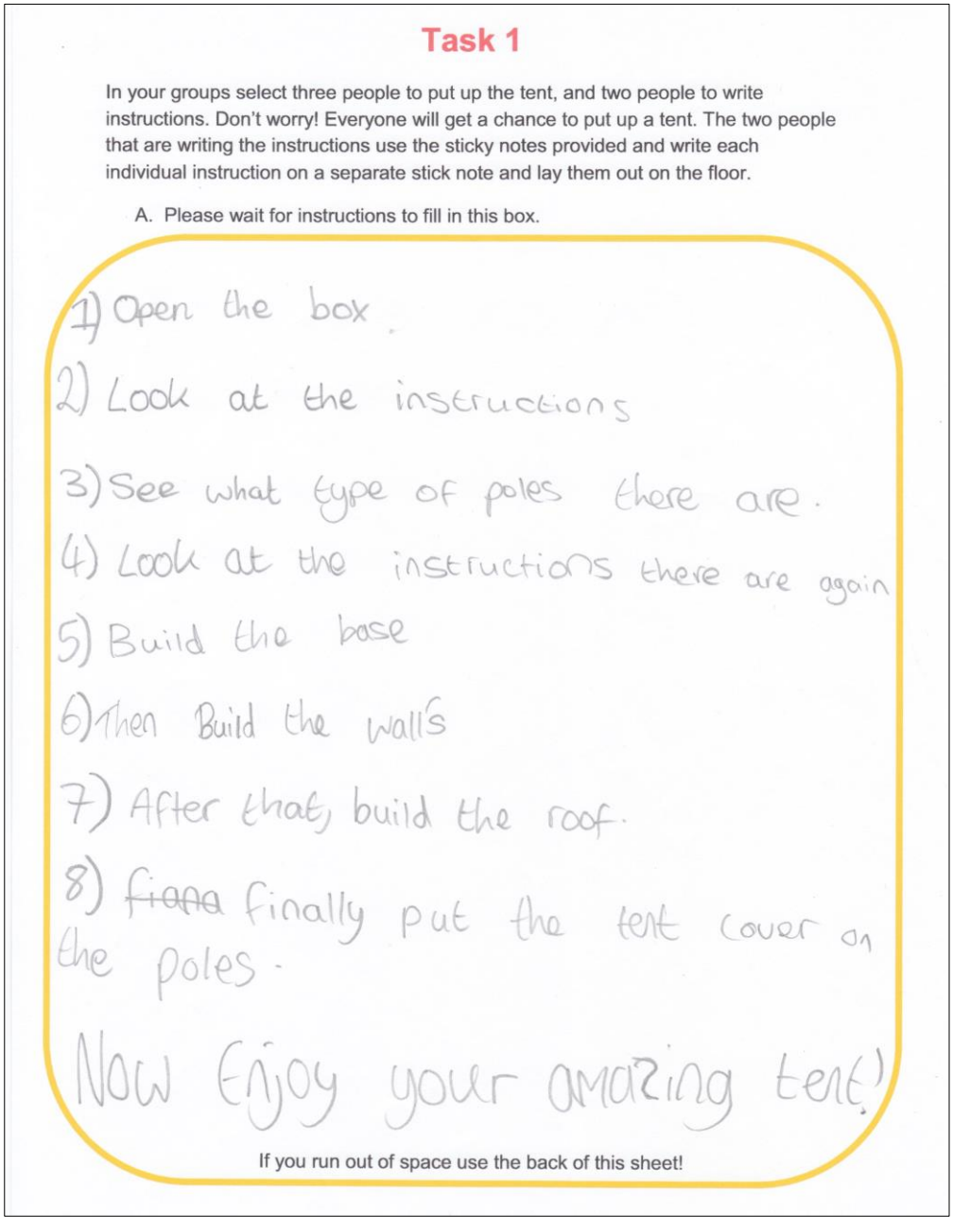
Today you are going to be taking part in a learning outside the classroom session, that will involve working with tents. During the day you will be engaging in a variety of activities and hopefully having lots of fun!



Group Number:

Appendix 7

Task 1 English: writing tent instructions, using connectives, sticky notes board. Literacy, teamwork and communication exercise.



Task 1

In your groups select three people to put up the tent, and two people to write instructions. Don't worry! Everyone will get a chance to put up a tent. The two people that are writing the instructions use the sticky notes provided and write each individual instruction on a separate stick note and lay them out on the floor.

A. Please wait for instructions to fill in this box.

1) Open the box

2) Look at the instructions

3) See what type of poles there are.

4) Look at the instructions there are again

5) Build the base

6) Then Build the walls

7) After that, build the roof.

8) ~~fiona~~ Finally put the tent cover on the poles.

Now Enjoy your amazing tent!

If you run out of space use the back of this sheet!

Appendix 7

Task 2 Maths: working out perimeter and area
Numeracy and problem solving exercise.

Task 2

Have a go at answering these questions.

A. How do you work out the perimeter of a shape?

Add all of the measurments together.

B. How do you work out the area of a shape?

Not that sure!

C. Harder question- Give it a go! How do you work out the volume of a shape?

Add every on of the measurments even the top and bottom

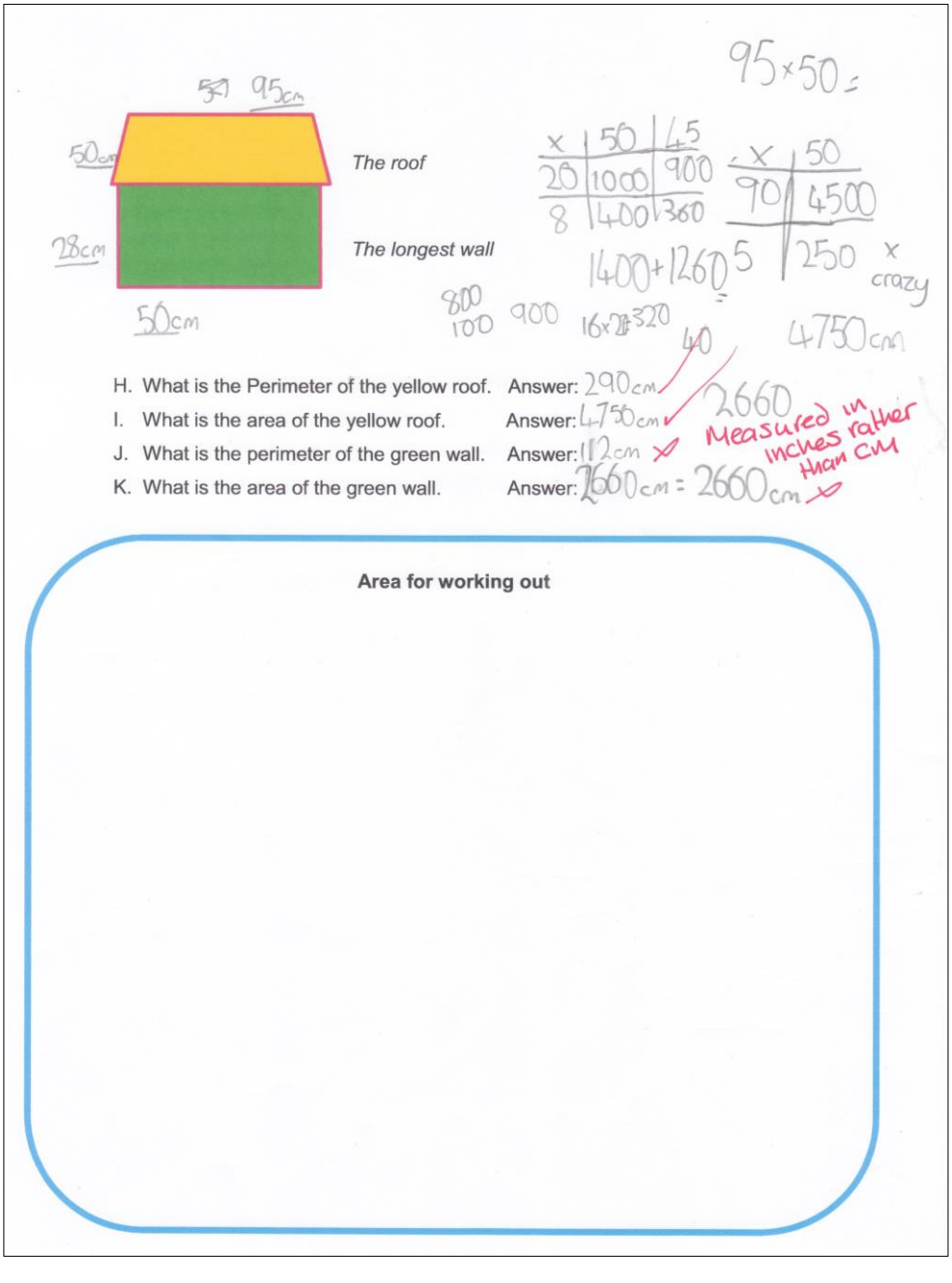
Let's get measuring!!! **There is space on the next page for working out.**

Measure these sections on the tent

D. Measure the perimeter of the pink square. Answer: 104cm
E. Measure the perimeter of the Blue triangle. Answer: 64cm
F. What is the area of the pink square. Answer: 784cm
G. What is the area of the blue triangle. Answer: 392cm

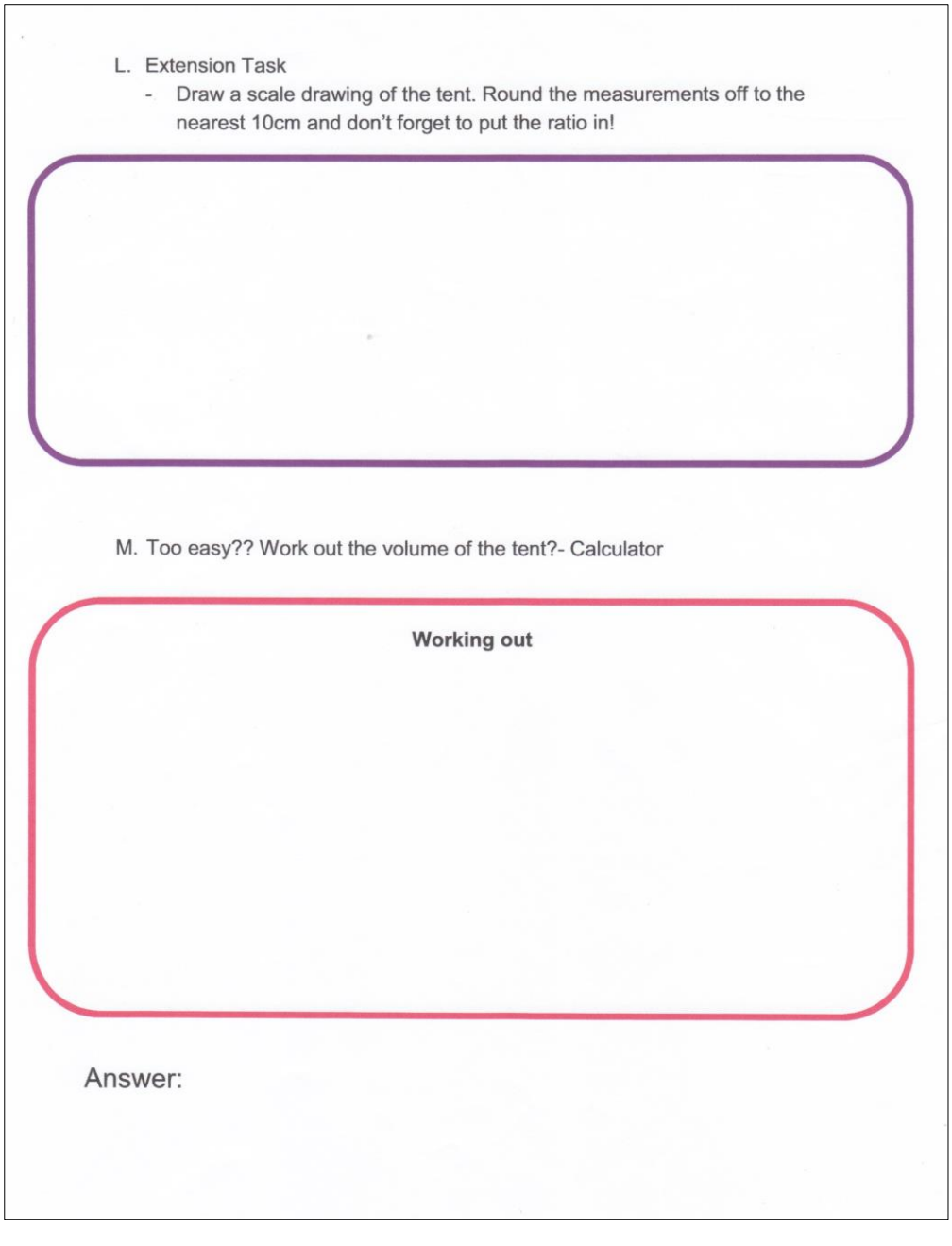
Appendix 7

Task 2 Maths: working out perimeter and area – show your working out



Appendix 7

Task 2 Maths: extension exercise, planned for but no time to engage with it.



L. Extension Task

- Draw a scale drawing of the tent. Round the measurements off to the nearest 10cm and don't forget to put the ratio in!

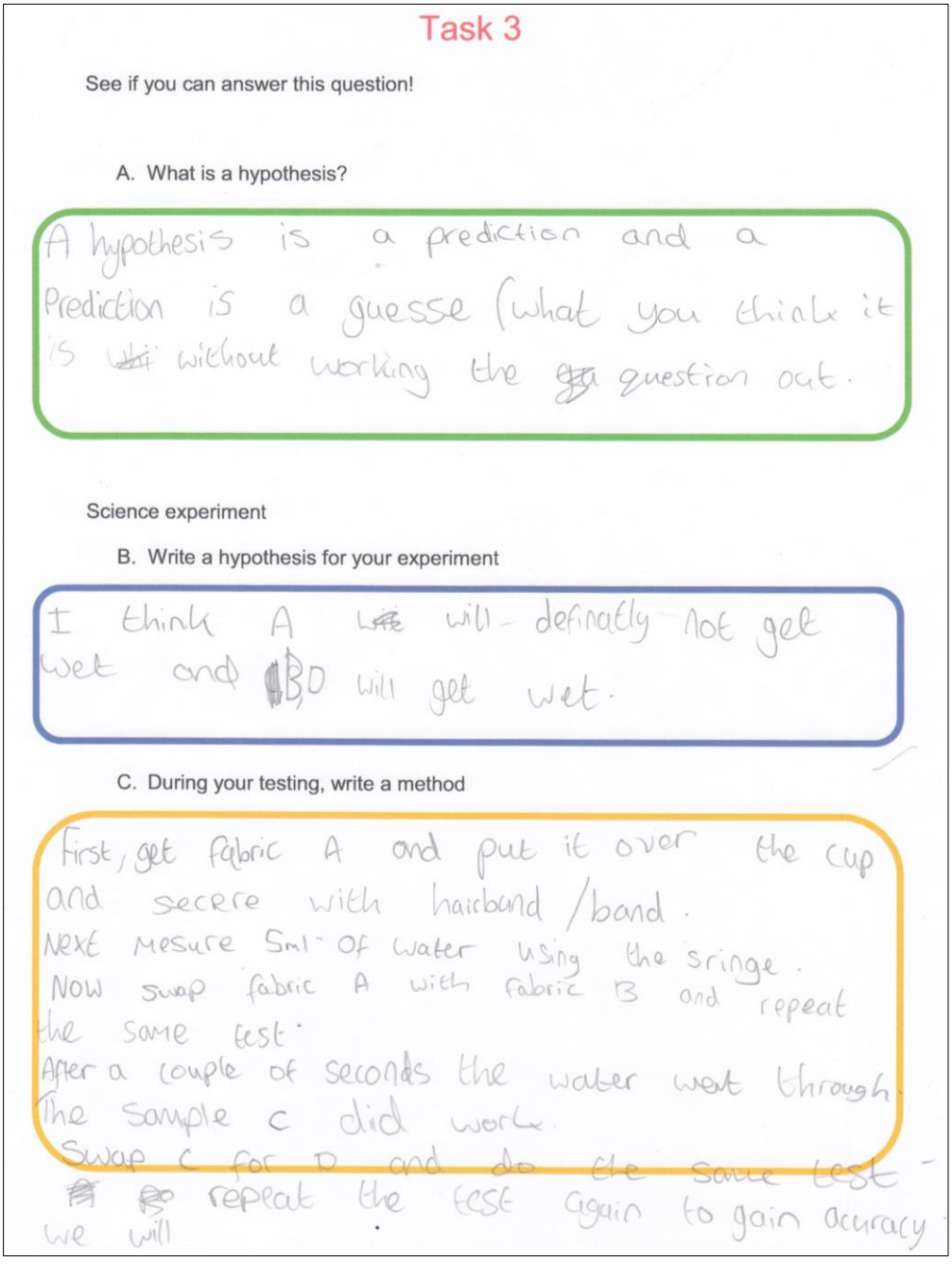
M. Too easy?? Work out the volume of the tent?- Calculator

Working out

Answer:

Appendix 7

Task 3 Science: analysing fabrics and qualities, using scientific language/method



Task 3

See if you can answer this question!

A. What is a hypothesis?

A hypothesis is a prediction and a Prediction is a guesse (what you think it is ~~that~~ without working the ~~qu~~ question out.

Science experiment

B. Write a hypothesis for your experiment

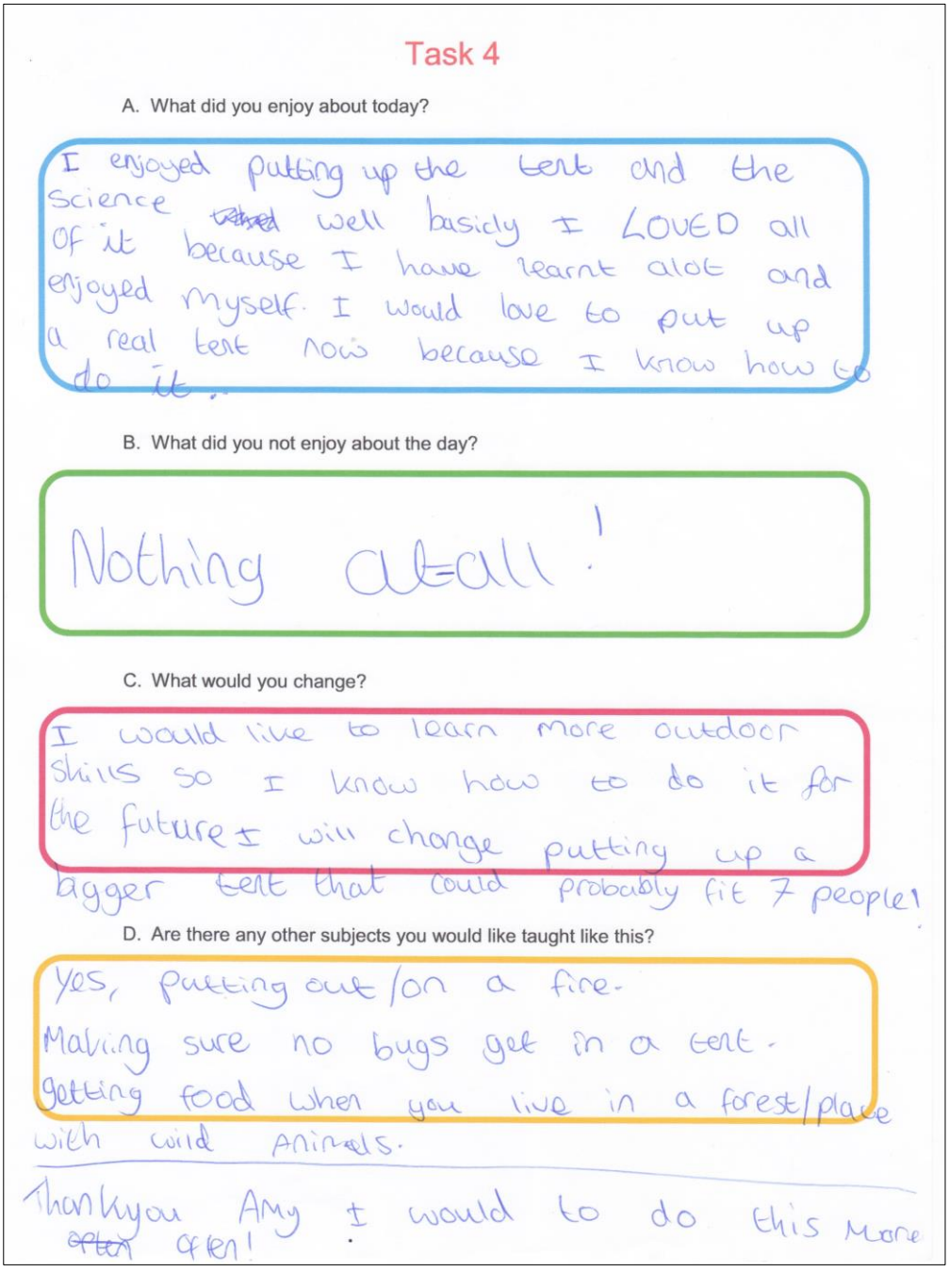
I think A ~~will~~ will definatly not get wet and ~~B~~ B,D will get wet.

C. During your testing, write a method

First, get fabric A and put it over the cup and secere with hairband / band.
Next Mesure 5ml of water using the sringe.
Now swap fabric A with fabric B and repeat the same test.
After a couple of seconds the water went through.
The sample C did work.
Swap C for D and do the same test -
~~If~~ ~~so~~ repeat the test again to gain accuracy
we will

Appendix 7

Task 4 Feedback: pupils' comments about the Outdoor Learning day. (1)



Task 4

A. What did you enjoy about today?

I enjoyed putting up the tent and the science ~~what~~ well basicly I LOVED all of it because I have learnt alot and enjoyed myself. I would love to put up a real tent now because I know how to do it.

B. What did you not enjoy about the day?

Nothing at all!

C. What would you change?

I would like to learn more outdoor skills so I know how to do it for the future I will change putting up a bigger tent that could probably fit 7 people!

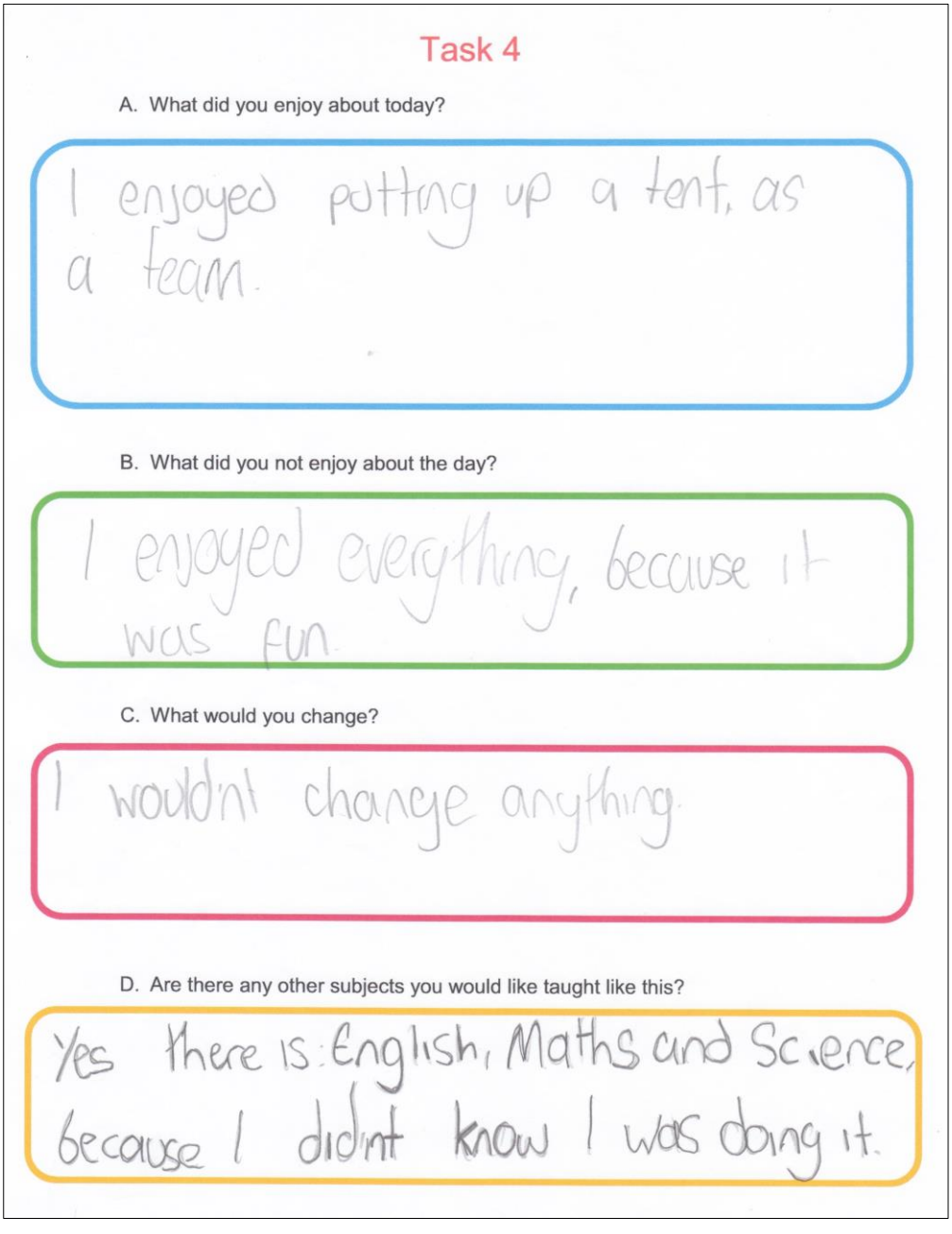
D. Are there any other subjects you would like taught like this?

Yes, putting out/on a fire.
Making sure no bugs get in a tent.
getting food when you live in a forest/place with wild Animals.

Thankyou Amy I would to do this ~~after~~ often!

Appendix 7

Task 4 Feedback: pupils' comments about the Outdoor Learning day. (2)



Appendix 7

Task 4 Feedback: pupils' comments about the Outdoor Learning day. (3)