Adventure Education: an examination of students’ perceptions of their experiences and personal growth during a centre-based residential in Brecon Beacons National Park.

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Abstract

Many adventure education authors recognise the value to children of experiential pedagogical methods. This study offers an examination of the experiences of a co-educational group of twenty-six students in year seven engaged in an adventure education residential programme. The main objective of the research was to study the students’ perceptions of their personal growth, resulting from participation in the programme. The investigative rationale was based upon a need to evaluate empirical data, namely the qualitative expression of student voices. This study appraises a justification for adventure education provision as part of the learning and development process in year seven.

The original research was conducted during a week-long, centre-based residential programme in Brecon Beacons National Park. Designed specifically for students entering key stage three, it consisted of participation in challenging, though stimulating, outdoor activities, including a mountain walk, caving, and climbing experiences. Adopting a qualitative research methodology, which included questionnaires and focus group interviews, participants were invited to reflect upon, and evaluate, their experiences and to draw from them conclusions and personal discovery.

Participants found their adventure experiences to have strong connections to both personal growth and the emergence of a co-operative group. Their perceptions show that the values of courage and endeavour hold substantive importance over time, in addition to the benefits of positive interpersonal relationships.

The study concludes by considering how practitioners in an educational milieu might respond to the implications of the data. Moreover, a fresh justification is proffered for the sustained inclusion of adventure education in the modern curriculum.
Being myself includes taking risks with myself, taking risks on new behavior, trying new ways of 'being myself', so that I can see who it is I want to be.

(Prather, 1990, 42)
1. Introduction

1.1 The experiential journey

This dissertation is prefaced by Hugh Prather’s words (1990) and his interpretation of self-discovery. It is an exhilarating point of origin from which to begin this study. To those who believe that education should be the foundation of children’s journeys towards this same goal, his brief words provoke contemplation and debate. At its thematic pinnacle is the celebration of identity: the result of introspection and of daring to become an individual. In education, as in life, where this ideal is embraced, opportunities emerge for children to grow.

Being a risk-taker is an attitude that requires nurture. Today, the experimental time of formative childhood needs educative support and guidance as children explore their identities against a society that is cautious and prohibitive. Personal growth synthesises what can be learnt from daring and endeavour. One of the great challenges facing schools is to provide environments that scaffold this most fundamental of learning experiences. It is here that the experiential journey begins.

This study investigates the efficacy of adventure education as provider of experiences that stimulate personal growth. Its conceptual roots lie in the interrelated way that challenges, perceptions of risk, personal growth and interdependence form an experiential pathway towards meaning. An exploration of this philosophy, through the perceptions of the children themselves, lies at the heart of this research.
1.2 Declaration of field interest and experience

During many seasons working as an adventure education facilitator at a North American summer camp, and in leading school residential visits, a close association with this subject has steadily evolved. One has a high personal regard for children’s adventure and challenge programmes, and there has been no dismissal of these experiences in choosing this dissertation subject. This is a research inquiry that seeks to re-evaluate the theoretical basis for adventure education, and precautions to adhere to an open position have been maintained.

In noting these interests and convictions, it is anticipated that this admonition provides additional clarity to the framework of the study. Furthermore, though personal experiences have been witness to numerous examples of children’s adventures, the lens through which conclusions have been formed is impartial, the analysis empirically based and objectively reviewed, in order to ensure balance and integrity.

1.3 Definition of research terms

1.3.1 Study participants and locale

This study illuminates the perceptions that students formed during a week-long residential visit to a centre catering for adventurous activities in Brecon Beacons National Park, south Wales.

The participants of this research study were a co-educational group of twenty-six students in year seven. All students are attendees at K. Secondary School. This is a pseudonym and not the actual name of the
educational setting. The school utilises this residential to support students in their understanding of personal goals and to foster the development of positive relationships between form members. These are not published aims, however. The students’ membership of one tutor group meant that the early stages of friendship had been established prior to the commencement of the residential visit. Two adults accompanied the children, one of whom was myself. Both were co-tutors to this form group.

Permission to name the outdoor centre in Brecon Beacons National Park was granted by the centre’s management. However, a sustained commitment to the ethical principles of research, which shall be further discussed in the methodology chapter, meant that, upon reflection, anonymity was a preferable course of action. For the purposes of this study, the location where all adventurous activities took place shall be referred to as ‘the centre’.

1.3.2 Adventure education

In childhood, as in adult life, ‘adventure’ conjures images of exploration and discovery, and the investigation of unfamiliar places. According to Prouty (2007), it is the type of experience that engages an individual’s physical and cognitive capacities. Adventure education is constructed from a number of components: adventure, personal development, challenge and risk, and reflection (Martin et al, 2004).

1.3.3 Personal growth

To define personal growth is a complex proposition. It is, to some extent, intangible and relative to individuals. Hopkins and Putnam
(1993) describe it as the outcome of challenge in a specific context, and that it begins with an understanding of personal identity.

The next chapter will examine each of these terms more widely with references to scholarly research. It is intended that the relationship between the terms and the field of study will be made more explicit.

1.4 Research exposition and aims

This research focussed on two principal areas of investigation. Firstly, it aimed to testify to the perceptions that students have of their adventure education residential experience. One of the difficulties schools share in promoting a rationale for adventurous activities is that the perceived benefits to children are often grounded in assumption rather than reliable data. This is an unsatisfactory position, omitting the qualitative expression of those for whom the programmes are designed. Secondly, this study discusses the fundamental purpose of adventure education, set against the context of a twenty-first century childhood. Objectively, the perceptions that children hold in both areas will fulfil the need for a greater understanding of adventure education’s efficacy.

Specifically, the aims of this study were:

1. To reveal the extent of the similarity or dissonance between students’ perceptions and the academic theories of children’s learning in adventure contexts.

2. To analyse these perceptions, and to clarify a programmatic rationale for K. Secondary School.
1.5 Research questions

This research was designed with the objective of finding solutions to the following questions. The rationale for each question, offered below, supports the question design.

1. What perceptions do students hold of their experiences during, and after, an adventure-based residential?

It was deemed important to establish whether there was sustained learning for students beyond the residential week.

2. In what ways can the adventure context present opportunities for personal growth?

This question was nuanced to ascertain the content and quality of the adventure programme.

3. Does adventure education additionally support the emergence of a co-operative group?

This question presented an opportunity to judge effectiveness in supporting students in year seven to become co-operative people. Jolliffe (2007) describes a co-operative group as having “positive interdependence” (page 3), where the contributions of all are perceived as mandatory for successful outcomes. Each of these questions was designed to invite qualitative responses, which would provide a more effective method of data gathering.

The review of literature that follows examines, in depth, the areas of study noted in this introduction. The methodology chapter reviews the research approach and describes the ethical gathering of data, the findings of which are presented and discussed in relation to theoretical
perspectives. Finally, the conclusion suggests ways that this study may positively impact current practice.

2. Critical review of literature

2.1 Objectives

The objectives of this literature review will be to uncover the theoretical perspectives on adventure education, its principles and its practices. Scholarly criticisms and philosophical debates will be examined to support a more complete assessment. The chapter concludes with a summary of the major findings, and exposes specific areas within the literature where questions remain.

2.2 The condition of twenty-first century childhood

Prior to examining the theory and values of adventure education, and in order to provide its context within the curriculum, it is first necessary to understand the educational and societal background in which children learn and live today.

The world of the twenty-first century child is one that is highly structured and circumscribed, with traditional freedoms having been eroded by the commercialisation of leisure time (Betz, 2010). Childhood is also increasingly shaped by technology, and children’s socialisation is ever more rooted in the virtual contexts created by the internet and social media (Hutchby and Moran-Ellis, 2001). In a modern context, children nourish their innate need for social contact with peers using digital formats (Livingstone, 2009). Even so, it
appears that the traditional social habitats of the outdoors have been made almost obsolete by the availability of instant communication. Though Livingstone argues a case that online spaces are simply an evolution of socialisation, it must be conceded that children’s habitation of this technologically constructed, interior reduces their natural contact with others (Lindblom and Ziemke, 2007). Palmer (2006) argues that “...children need real interactive communication and real talk” (page 124). To not acknowledge this surely dismisses the connection to humankind’s anthropological past. Tangible human interaction is surely a value which must be preserved.

The aversion of risk is another feature of twenty-first century childhood. Gill (2007) asserts the paradox that in order to keep children safe they must be exposed to the risks that can offer life lessons. Filer (2008) agrees that there must be an increasing willingness to allow children to be explorers and not to succumb to a risk agenda. Perhaps because perceptions of risk pervade modern life, the outdoors, traditionally a place of creative leisure time is now less frequented by children. In its report published in 2010, the House of Commons Children, Schools and Families Committee concluded that the amount of time children spend outside has diminished to worrying levels. The report also strongly encourages Ofsted to ensure that learning outside the classroom is made part of its inspection protocol. Here, a disconnection between the protectionism of modern society and the need for children to be natural explorers comes into sharp relief. The very purpose of adventure is to expand horizons and to better equip children to face life’s challenges. As Barton (2007) notes, it is the intensity of risk and not knowing that grants life’s most valuable lessons.

Undoubtedly, it is insufficient to simply proclaim the past to be the only desideratum for modern childhood. What seems to be required is a rebalancing of values, where children are permitted to calibrate more freely their sense of risk, adventure and community. It is both schools and parents who share this responsibility to offer children alternative
values to the "excessive individualism" of modernity (Layard and Dunn, 2009, page 6). It is against the backdrop of twenty-first century childhood that this study is set.

2.3 Experiential learning: theory and criticisms

Adventure education shares its theoretical base with experiential education: a pedagogy that aims to make learning meaningful through experience. This is achieved by creating situations that require children to think about how they are going to react in a particular situation; and how decisions of the future might be based on what they have learnt. Experiential education forces children away from their comfort zones, and, in so doing, generates co-operation and interdependence, rather than independence. Experiential learning is, moreover, often characterised by utilising the group as a resource: it is a philosophy that requires the student to be intellectually curious, responsible and self-defining (Moon, 2004; Itin, 2009).

Kolb (1984) suggested that learning "...must be reimbued with the texture and feeling of human experiences..." (page 2). His Experiential Learning Cycle proposes that individuals can learn through their experiences of the world. The cycle begins with a new experience that must be followed by a period of reflection by the learner. The next step involves making sense of the experience, prior to experimentation with new meanings (Dixon, 1999). It is the meaningfulness of the experience that allows learning to take place (Polkinghorne, 1988).

Kolb’s Experiential Learning Cycle places huge importance on cognition. Indeed, cognitive processes must be an integral function of the experience because this is created and interpreted by the individual (Kime, 2008; Allison et al, 2011). One of the difficulties with espousing an experiential approach to learning is that experiences alone are rarely sufficient, as Boud et al point out:
While experience may be the foundation of learning, it does not necessarily lead to it; there needs to be active involvement with it.

(Boud et al, 1993, page 9)

This analysis by Boud et al carries salience. Only by providing contexts in which children can learn to understand their experiences do they begin to extract meanings from them. Blacker (2001) concurs, suggesting that there is a necessity for proper connection with the emotions of the experience if evaluative judgements about what has been learnt are to be formed. Criticisms of Kolb’s work contend that what is learnt experientially may, in fact, be an inaccuracy, the result of cognitive limitations (Beard and Wilson, 2006). Adventure education must, however, be a cognitive and analytical experience in order that children’s personal growth can be fully realised. In this regard, the facilitation of adventure experiences should be accompanied by opportunities for deep reflection. One shortcoming of school courses is that they are not always designed with time built in for this activity. Only by framing an experience might students truly appreciate the scale of accomplishments relative to their own sense of achievement.

Another of the criticisms of experiential learning is the degree to which children have the ability to continue learning from their experiences. Roberts (2012) notes that “When ‘experience’ becomes an isolated thing to have and consume it loses its potential to teach any more” (page 107). Here, Roberts observes that rather than being compartmentalised, experiential learning should be influential beyond the experience; this, indubitably, is a challenge to curriculum design in schools.

Though there is both advocacy and criticism of experiential learning approaches, adventure education has the potential to create learning opportunities if students are guided to make meanings from their experiences. Thompson (2012) states that “…experience changes your experience of the world” (page 227). It is perhaps the restoration of
this value that should influence the design of experiential learning curricula for children.

### 2.4 Adventure education and personal growth

The second of the research questions asks in what ways the adventure context can provide personal growth opportunities. This part of the literature review assesses adventure education philosophy and its criticisms.

Adventure education is specific in its presentation of challenging situations to children, invariably forcing a separation from the habits and comfort of daily life. Adventure education promotes personal challenge, mutual support, and the harnessing of abiding fellowship. It is a holistic philosophy: judgements are not imposed upon children; instead, achievement is determined, not by summative measures, but by the effort invested by the individual.

Miles and Priest (1990) state that its defining feature is a goal to: "...expand the self, to learn and grow..." (page 1). Kime (2008) notes that adventure education is built upon a voluntary entry into a challenging situation by a participant where the outcomes are unknown. Bunyan (2011) states that personal growth takes place when an individual perceives a distance between their ability and the risk of the challenge. At this point, the construction of the experience is underpinned by a philosophy central to adventure education.

### 2.5 Challenge by Choice: an adventure education philosophy

Challenge by Choice is the principle upon which much of adventure education provision is based. It has been reviewed and given credence by a host of researchers in the field. Laid bare, Challenge by Choice
can be characterised by children’s custodianship of their own learning: “...the right to choose the level of challenge that best supports their learning goals” (Panicucci, 2007, page 41). The principle ensures that learning choices remain the possession and responsibility of the individual (Kasser and Lytle, 2005). It is this factor which is theorised to be a powerful and effective vehicle for personal growth.

The Challenge by Choice ethic is not designed to enervate, but rather to liberate. Outward Bound USA (2007) describe the point at which participants step from beyond a zone of comfort into the unknown, inducing anxiety. At this liminal point, discomfort gives way to fear and it is courage that must be invoked in order for progress to be made.

In their seminal work ‘Islands of Healing’, Schoel et al (1988) reason that Challenge by Choice can establish an environment within a group where respect and support for effort is valued over performance. This creates a culture where attainment is not judged against success criteria, but is comprehensively the resultant effect of individuals believing in the value of endeavour.

Challenge by Choice is not without its criticisms, however. Wolfe and Samdahl (2012) discuss that one of the main issues with the Challenge by Choice philosophy is that adventurous activities are often designed for the purpose of group activity, thus making individual choice much more of a complex proposition. In addition, being a member of a group offers its own pressures associated with participation, so the liberating effect of individual challenge is lost to a group-generated impulsion. Furthermore, Challenge by Choice:

...rests on a false belief that individuals can make autonomous decisions in social settings that promote group interaction.

(Wolfe and Samdahl, 2012, page 28)
This presentation of the group as a hindrance to individual decision making warrants further consideration: the effect of peer pressure has the potential to support or deter personal challenges. An opposing view can be found in the work of Schoel et al (1988). They find value in challenging situations that operate in "...an atmosphere of support and caring" (page 131) and recognise "...the attempt is more significant than performance results" (page 131). Both elements form essential dimensions of the adventure experience, but it is the latter which echoes the holistic imperative of Challenge by Choice. Furthermore, Thompson (2012) argues that where there is choice in adventurous activities, the successes that children experience are uniquely their possession.

2.6 The gateway to personal growth: fear, vulnerability and courage

"Fear is central to courage; it must be present for courage to exist" (Yang et al, 2010, page 5). The analysis of Yang et al above is at the heart of the personal growth experience, where the congruence of risk and fear necessitates the invocation of courage as a response. Frost and Hirsch (2011) state that "liminal experiences [...] create situations of learning" (page 93). These threshold moments create the pinnacles at which personal growth occurs, where participants allow themselves to be placed in positions of vulnerability.

Adventure education capitalises upon participants’ perceptions of either physical or emotional risk (Rohnke, 1999). Due to its subjective nature, the prominence of risk as a perception is inextricably linked to the nature of the challenge (Bunting, 1999; Hillson and Murray-Webster, 2007). Placing children in such situations may appear exploitative, yet, with an adherence to the values embodied by Challenge by Choice, there is an assurance that children enter challenges with emotional safety (Sugerman et al, 2000).
Fear is often an intrinsic part of the adventure experience for participants. Outward Bound USA (2007) describes the representation of fear in an adventure education situation as the projection of what is perceived to be a successful outcome, rather than the concept of challenge itself. A successful intervention at this stage, most likely to be facilitated by an instructor, can support children to dissociate with any preconceived summative goal and embrace a courage-based ethic in its place. Yang et al offer an explanation for the dearth of courage in modern society:

*The fundamental problem for an individual lacking courage is the fear of making mistakes. Our discouraged or less than feeling becomes worse when it is interlocked with a society that is mistake centred.*

(Yang et al, 2010, page 8)

Failure, however, has value. The adventure experience allows participants to gain from both perceptions of success and failure (Frost and Hirsch, 2011). Overcoming challenges with perseverance serves to establish a sense of identity because of the way that courage is responsible for the conditioning of a personal response (Bandura, 1995; Yang et al, 2010). As Kiros (1998) points out: "*It is courage that precisely makes it possible for us to choose the most difficult task of going against ourselves...*” (page 75). In taking these difficult decisions, children undoubtedly place themselves in vulnerable positions. It is this vulnerability, however, that may provide the gateway to courage. Brown surmises its importance thus:

"*Raising children [...] who have the courage to be vulnerable means stepping back and letting them experience disappointment...*"

(Brown, 2012, page 240)
The trend of modern life would appear to promote the goal of success at the expense of daring; indeed, education is constructed this way. There is a proclivity to label children as successful or unsuccessful, but rarely is the word courageous equally offered as an apppellative. The potential harm of this psychology is a belief among children that taking risks is redundant; that effort is not worth the risk; that the primacy of success precludes courage as a dominant ideal.

2.7 The relational significance of the natural environment and the adventure experience

There is a wide research base for promoting children’s interactions with the natural environment. Perhaps the most convincing of these arguments points to the atrophying ties between children and nature. Louv (2005) and Moss (2012) argue that the transcendent quality of time spent in nature can be spiritually enriching for children. In an adventure context, the natural environment plays a specific role in the shaping of personal growth opportunities.

Immersion in the wilderness creates a sense of the unknown, raising children’s perceptions of risk and anxiety (Nadler, 1993). Kime (2008) also suggests that the outdoor settings associated with adventure education are conducive to "...a degree of danger or uncertainty for the learner..." (page 42). Though this research points to the significance of natural environments to the adventure experience, McKenzie (2000) notes the additional study required to acknowledge its importance conclusively. Only by analysing the results of comparative studies of adventure-based learning that focus on familiar locations, such as schools, can the impact of the environment on personal growth be distilled. McKenzie’s is a valid appraisal, and its contribution to this investigation is important: in evaluating the significance of the wilderness by analysing children’s perceptions, an assessment can be made of its augmentation of personal growth objectives. In so doing,
the rationale for adventure-based learning in the curriculum may meet either with endorsement or the necessity for a review of practice.

A value common to both adventure and environmental education can be found in the promotion of children’s understanding of their responsibility towards stewardship of the Earth. Carroll (2007) suggests that children require nature-based experiences that “turn on their sense of awe and wonder and give them a visceral connection with the earth” (page 93). When adventure education places children in natural environments, there is a fulfilment of a dual purpose: first, challenges that are situated in unfamiliar contexts encourage a greater engagement by individuals, for this is requisite of learning that takes place outside of a zone of comfort. Secondly, students can gain a deeper appreciation of wild places when immersed in the learning challenges that they provide. As such, adventure set in nature can provide precise antidotes to the aspects of modern society, previously characterised by authors earlier in this chapter.

Increasingly today, there is a suggestion that through creative and imaginative facilitation, experiential learning traditionally belonging to the outdoors can be brought into the classroom (Beard and Wilson, 2006). Though it must be conceded that schools may favour this alternative when considering financial and time implications, it seems wholly unsatisfactory when the point of experience is to widen children’s horizons. Any tangible sense of the mountain or river is lost, and this must impact the potential for personal growth. Natural environments are likely to offer children enriched possibilities for creative learning through discovery. Furthermore, "geological variations provide exciting psychomotor challenges" (Lester and Maudsley, 2007, page 26). This unpredictability and fascination simply cannot be replicated in the classroom.
2.8 Learning together: how adventure education might support the emergence of a co-operative group

The third of the research questions asks if adventure education can additionally support the emergence of a co-operative group. Before examining this question specifically, it is necessary to set in context why this may be of importance to children entering key stage three.

The beginning of adolescence is a time of flux for all children, with biological, educational, and relationship developments each impacting a sense of self-identity (Rubin et al, 2006). One of the more potent influences on a child’s emotional stability is their relationship with peers. Peer groups may act as a support network for a collective expression of values, though, conversely, they can render membership as an exclusive domain, segregating others who are judged not to conform (Berns, 2010). This scrutiny of judgement can place a tremendous pressure on children who, under strain to be a part of the collective, suffer the ill-effects of isolation. As children enter year seven, part of the endeavour of school staff must be to help children adjust to new relationships by nurturing the values of friendship and co-operation.

It is useful to begin an examination of co-operative group functioning by using Jolliffe’s description (2007), first noted in the introduction. Such groups, it is stated, are distinguished by their "positive interdependence" (page 3). Social interdependence is a pedagogic model widely used in modern education, in which the influence of, and interactions with, others affects the accomplishment of an individual’s goals. At the heart of this co-operative dynamic is a "positive cathexis" (Johnson and Johnson, 2008, page 32), where there is emotional investment by the group in the experiences of the group. This analysis finds agreement from Cotterell (2007) and Zastrow (2010). Adventure education challenges are structured to facilitate precisely this ethic, where the effective functioning of the group is a result of the belief and
practice of all individuals in its social code. Moreover, social interdependence is a cyclical process, where the nurture of the group provides greater social support, in turn establishing higher levels of commitment and reciprocal, positive influence between members (Johnson and Johnson, 2008).

The relationship between intrapersonal learning and interpersonal development is significant: in the adventure context, the group that applauds the efforts of an individual further validates the effort that was invested by that individual. It would seem that the support of the group is not only desirable in adventure situations, but integral to personal successes. There is a strong connection between this argument and the function of courage, as described earlier in this chapter. Yang et al state:

*The value of courage depends not only on our evaluated goals and directions, but also on an affectionate sentiment we have towards others.*

(Yang et al, 2010, page 11)

This analysis implies that courage operates as a result of interdependence. This is supported by Neill and Dias (2007), who describe personal growth as an increasingly significant product of adventure when "*the salve of social support is applied*“ (page 41), a view that is juxtaposed with the position of Wolfe and Samdahl (2012) previously described.

What is striking about the relationship dynamics of cohesive groups is the way that positive connections between individuals are essential for group stability (Hillson and Murray-Webster, 2007; Mitten and Clement, 2007). When this theory is distilled further, it is the value of co-operation that emerges as the strengthening bind that decides an individual’s positive inclination towards others. This also encourages a willingness to promote the well-being of the group (Newman and
Newman, 2012). The research of these authors would seem to corroborate the "positive cathexis" description put forward by Johnson and Johnson (2008), illustrating emotional investment as being inseparable from positive group functioning. Forsyth summarises the influential nature of this values-based relationship:

...people in groups are, by definition, interdependent, so their outcomes are often linked together [...] In cooperative groups, members enhance their outcomes by helping other members achieve success...

(Forsyth, 2010, page 382)

Groups can play an important role in supporting individuals through challenging situations by their empathetic responses to effort (Smith, 1998). Empathy is important in the adventure context: the awareness that experience provides helps students to form their compassionate and encouraging responses. The composition of adventure education activities can be team-based, social tasks, such as navigating a river crossing, or they may be challenges that are individually-orientated. Irrespective of this nuanced presentation of challenge, co-operative learning is a fundamental component of both, in which there is a development of social skills, such as communicating effectively, and learning to accept and appreciate others (Hopkins and Putnam, 1993; Orlich et al, 2010).

Perhaps the most notable product of a group’s mutual support for each other is the effect it can have on individuals’ personal regard for themselves, or, as Worzbyt (2004) concludes: "... as children learn to care they discover their own self-worth..." (page 30). These characteristics of positive interdependence may not easily be measured, but the educational embracement of this value as a criterion for success can support children’s development as compassionate individuals. At the beginning of key stage three, such goals are noble ones.
2.9 Developing a purposeful rationale for adventure education

2.9.1 A values-based rationale

An explicit aim of this research is to clarify a programmatic rationale for K. Secondary School. Whether developing or continuing an adventure education programme, one of the most important tasks for a school is to be clear about a rationale built upon values. To this end, Doddington and Hilton (2007) advocate that the values which underpin aims should be justified and made public. Where schools practice a routine evaluation of programme objectives and efficacy, the parents of students may be incentivised to financially support their child’s participation, a consideration for families ever more pressing in the current economic climate.

2.9.2 Endorsement for learning outside the classroom at the political level

In its Learning Outside the Classroom Manifesto document (DfES, 2006), the government of the time provided a wide-ranging endorsement for different types of learning planned and executed by schools. It noted the educational gains that could be derived from learning in disparate contexts. The policy also considered the transferability of knowledge and skills between different contexts of learning, and points to one of its major benefits as a route to higher achievement. There is, however, a need to be cautious with such assertions. Payne and Owen (2006) suggest general assumptions that experiential learning away from the classroom will result in children’s progress to be naive. This is because the transfer of learning is complex, particularly where activities are discrete and do not appear elsewhere in the curriculum.
2.9.3 A curriculum in need of revision

There are further reasons to suggest a rationale for adventure education in a year seven curriculum. Today’s school system can effect a pressurised environment in which children are driven to be successful, sometimes detrimentally so, at cost of formative childhood experiences (Prout, 2005). Similarly, Doddington and Hilton (2007) present the current curriculum to be neglectful of children’s needs for human values, such as compassion and belief. Johnston and Halocha (2010) discuss the challenge to steer the priorities of children’s education away from the "current focus on narrow cognitive targets" (page 62), creating holistic learning environments that sustain children beyond their acquisition of academic skills. The outdoors, they argue, is a vehicle to achieve this goal.

One reason for the misshapen curriculum as it has been described above might be the imposition of Ofsted’s criteria for success: a relentless focus on classroom practice, shifting the importance of learning in other arenas to the periphery. The proclivity for summative judgements is omnipresent in schools, and this creates a culture where children are perennially evaluated; the methodology of the classroom "perceiving mistakes as failures“ (Brandes and Ginnis, 1986, page 55). Hallam and Rogers (2008) discuss the urgent need for a realisation that learning is not confined to the classroom, but that it pervades the "hidden curriculum” (page 285). Where learning is experiential, they suggest, it has much more relevance to children.

Schools that choose to help children learn experientially do so with scholarly endorsement. Dillon et al (2005) assess the positive gains to children learning outdoors to include: "...increased confidence, improved social skills and a greater belief in personal efficacy” (page 2), while Ebert and Culyer (2011) note the gravity of experience in the outdoors as highly significant for children.
Where a curriculum is clear about its objectives for holistic growth, it may additionally strengthen a rationale for adventure-based learning. Just as high regard is given to practice in the classroom, there should be no less regard for examples of outstanding teaching and learning in other domains. Any measures of children’s progress limited to the binary clarity of academic data appear to exclude the wider responsibilities that schools share in supporting personal growth. Above all, an adherence to values can help K. Secondary School to publish a rationale for adventure education with a belief that need not be in competition with outside influences. This, coupled with a transparency to staff, students, and parents may serve to achieve this goal.

2.10 Literature review findings: a summary and reflection

It is clear that there is a significant body of evidence to suggest the efficacy of adventure education as a facilitator of meaningful personal growth experiences for children. The work of Yang et al (2010), particularly, warrants further reflection, where their deconstruction of the relationship between fear and courage seems at the heart of the adventure experience. The research of Hopkins and Putnam (1993), too, underpins another core value of experiential learning, where achievements are not confined to what is measurable, but belong to the more abstract notion of how children perceive themselves to grow. Above all, the literature has strengthened a view that children’s growth is allied to the felt senses of courage, trust and community.

Pedagogical models are open to both endorsement and criticism. This review has highlighted research that conveys the need for additional clarity when presenting a rationale for adventure education. In addition, questions have been raised regarding learning transfer between different contexts, and there is no widespread consensus that personal growth is a routine outcome for all participants of adventure
programmes. It is in sourcing the perceptions of children that the original research of this study seeks to address some of these controversies.

The research questions that bear influence over the application of the methodology remain in their original form:

1. What perceptions do students hold of their experiences during, and after, an adventure-based residential?

2. In what ways can the adventure context present opportunities for personal growth?

3. Does adventure education additionally support the emergence of a co-operative group?

The following chapter describes how the methodology was designed to capture data that would answer each of the questions above.

3 Methodology

This chapter describes the methodology used to collect and analyse the original research data of the study. Each selection of data collection and handling method is justified in light of the research questions, and the locations of their usage are also noted. The ethical strategy that underpins all of the data collection is given full exposition.

3.1 A qualitative research approach

A qualitative research methodology was espoused for this study. Influenced by the content of the research questions, this decision was
taken with an understanding that the essential purposes of qualitative research are to understand experiences (Lichtman, 2010), and to illuminate the meanings that can be derived from them (Hollway and Jefferson, 2000; Horsfall and Titchen, 2011). The need to provide the conditions in which children’s thoughts, feelings and emotions could be expressed were closely allied to qualitative data collection methods.

3.2 Ethical strategy

Remaining within the ethical parameters of research in schools was a prioritised objective at each stage of the study. Consultation with ethical guidance published by BERA (2011) and the University of Northampton (2012) provided a basis from which all original research was conducted.

Permission to proceed with the research was granted by the head teacher of K. Secondary School. This followed a discussion, the subject of which was the University of Northampton: School of Education Research Ethics Approval Form.
University of Northampton: School of Education Research Ethics Approval Form

The discussion made clear the rationale for research and a consideration of vulnerable participants; the form bears the ethical approval of both the head teacher and research supervisor.

A letter was written to parents of the student research group. This contained information about research intentions and detailed guarantees pertaining to confidentiality and anonymity. The letter duly noted the option of withdrawal from the study. The letter is presented below in its original form, though names have been deleted to protect identities. The student research group was informed about the research objectives and their participation was explained. Students were offered assurances that the data they provided would be read only by myself. Moreover, the ethical strategy presented in this study underscores a respect for all participants and an appreciation of their contributions.
09 October 2012

Dear Parents/Guardians

Re: University Research

I work as a member of the English and Expressive Arts faculty at University of Northampton. Currently, I am studying an undergraduate Teaching and Learning course at the University of Northampton. In this, the final year of my degree, I am required to conduct some research in school as preparation for writing a dissertation.

My dissertation focus will be an evaluation of the perceptions and experiences of students in Year 7 during their week at the [Redacted]. As part of the study, I would like to collect information from a diverse selection of students across the year group through questionnaires and short interviews.

Prior to this correspondence, the permission of the Head Teacher, [Redacted], has been sought and granted. I give you every assurance that my study will be conducted in the strictest confidence and that the research model adheres to BERA (British Educational Research Association) ethical guidelines. All names and personal details will be anonymised: neither your child nor [Redacted] School will be named in my dissertation or any publication associated with it. My research will only be shared with my university-based supervisor, and I shall comply with any request that you or your child might have to withdraw from the study at any time.

Upon the conclusion of my study, a copy of the final report summary will be made available for your reference, if requested.

If you do not wish for your child to participate in this study or have any concerns, please email me at pwareham@[Redacted] by 31 October 2012, and I will be happy to answer questions.

With generous thanks.

Yours sincerely

Mr P Wareham
English and Expressive Arts

Letter of consent to parents of student participants
3.3 Undertakings to ensure validity

Conducting the original research with a sample size of twenty-six students provided sufficient scope for establishing valid analytical observations; a smaller sample may have prevented such an objective analysis. In a personal capacity as one of two form tutors to the group of students, there was a heightened awareness of the need to take steps in minimising the threat of bias, and this will be discussed in sub-chapter 3.4.2. One significant benefit of being form tutor to this group was the unimpeded access to the participants. In addition, a personal proximity to the collection of data at the centre ensured that the research was entirely manageable.

3.4 Data collection instruments

3.4.1 Student questionnaire design

Requiring respondents to interact only with their thoughts, the questionnaire does not subject children to additional influences, removing the effects of peer pressure. Questionnaires do not funnel nor condition responses, enhancing the ethical foundation for its use with vulnerable participants.

Maximising engagement with the questionnaire to provide a rich data yield was imperative, and simplicity was judged an important component of the design. The questionnaire, as given to the students during the residential week, is presented below. In this case, the questionnaire had a limited number of questions, with brevity an important motivational influence upon child respondents (Krosnick and Presser, 2010). Visually simplistic, too, the aim was to subdue any feeling of a burden to write at length.
**Monday**

The activity I did today was:

_________________________________________________________

My most memorable moment during today’s activity was:

How did doing the activity make you feel?

________________________________________________________________

How did you feel afterwards?

________________________________________________________________

What did you learn about yourself today?

________________________________________________________________

How do you think this experience might help you at school or in your life outside school?

________________________________________________________________

**Tuesday**

The activity I did today was:

_________________________________________________________

My most memorable moment during today’s activity was:

How did doing the activity make you feel?

________________________________________________________________

How did you feel afterwards?

________________________________________________________________

What did you learn about yourself today?

________________________________________________________________

How do you think this experience might help you at school or in your life outside school?

________________________________________________________________

**Student participant questionnaire pro forma**
The questions themselves were framed openly, supporting the objective to gather qualitative responses. This allowed respondents to indicate their perceptions through their own decisions about language choices (McBurney and White, 2010). An imposition of language, as in closed responses, would have nullified the purpose of the questionnaire, which was to capture perceptions honestly. The justification for each question was determined by the information required (Iarossi, 2006); and word choices were nuanced in ways that assured neutrality (Bradburn et al, 2004) and fostered qualitative reflection. For example, the verbs ‘feel’, ‘think’ and ‘learn’ are thematically linked to perceptions, which are a fulfilment of research question one.

**3.4.2 Questionnaire implementation and efforts to reduce bias**

Oppenheim (1992) cautions that bias cannot be definitively removed from the questionnaire format, even in the absence of the researcher. This is because respondents may be influenced by having knowledge of the author of the questions. Heeding this admonition, a level of detachment was maintained during each session when students completed their questionnaire. In asking my co-tutor to facilitate these data-gathering activities, students may have been placed in a position to make a temporary disconnection between the research tool and the researcher. By suppressing these influences as much as possible an overall increase in the validity of the research was expected.

**3.4.3 Focus group interviews**

The decision to apply a second method of data-gathering was taken on a validation basis in order to support the inferences made from the questionnaire data (Trumbull, 2005). In addition, it was judged that
although students had been presented with an opportunity to record their perceptions, the brevity of the responses provided only a superficial insight into their experiences. In particular, further questions regarding the longevity of impact of the adventure experience were required, primarily to strengthen an understanding of the final questionnaire question: ‘How do you think this experience might help you at school or in your life outside school?’ In conducting the focus groups some four months after the adventure experience, the aspect of time would increasingly support depth and salience in students’ reflections (Alderson, 2004). The focus group additionally sought to elicit those perceptions which had solidified, expanded, or refracted over time.

In selecting students to the focus group interviews, it was judged that a random sampling method would constitute the most valid approach. However, it was determined that both male and female students should be represented in the sample for the purpose of equitable gender representation. In total, four female and three male students were interviewed, with one withdrawal because of illness.

One of the benefits of the focus group interview is its inherent social dynamic, and being part of a group situation can invoke a willingness among participants to share their testimony (Hatch, 2002). These benefits were noted, and objectives, made explicit to the students, were to promote self-disclosure, and the identification of a diversity of perceptions (Krueger and Casey, 2000). It was also important to be ethically aware during the interview itself, responsible to individual students’ sensitivities. Furthermore, the careful handling of responses, coupled with a preparedness to probe answers when appropriate, would support an identification of the thematic links produced within the group (Liamputtong, 2011).
3.4.4 Centre instructor semi-structured interviews and co-tutor testimony

The views of the centre instructors mattered to this research inquiry. This is because an instructor is an expert in his or her field, and their experiences of children in the adventure environment permit a higher conceptual understanding of how personal growth manifests itself in general terms. Specifically, the justification for the semi-structured interview format was intended for elaborating an understanding of research questions two and three.

Lowe (2007) discusses the intimacy of the relationship between a researcher and their subject that can be provided when conducting interviews. A series of questions were written in semi-structured form. A clear advantage to the interviewer in such situations is that conversation is not bound by the questions alone, and that, in being reflexive to the responses, other lines of enquiry can be followed (Grix, 2001; Scott and Morrison, 2006). Conducting two interviews was a consideration of validity and diversity of thought. Similarly, asking the students’ form tutor to record her testimony of students’ experiences enabled a third adult perspective on the value and relevance of the adventure context.

The ethical protocol discussed at the beginning of this chapter was similarly followed when interviewing instructors at the centre in south Wales. The instructors’ permission was sought to digitally record interviews, and assurances were extended regarding the guarantee of anonymity, together with the destruction of the original data upon completion of the study.
3.5 Considerations regarding data reliability: emotional intelligence

Both questionnaire and focus group formats demanded that students engaged with their emotional intelligence. This has been defined as the ability to perceive one’s own emotions (Wharam, 2009; Zeidner et al, 2009), accompanied by the ability to be aware of the feelings of others (Horn and Ellis, 2013). As has previously been discussed, emotion and experience share similar foundations of conscious thought; it therefore follows that the language used by respondents to describe experiences are semantically grounded in emotions. Though a researcher may be able to distinguish emotionally-intelligent markers in the data, personal aptitude for recording interpretations about experiences undoubtedly affects the data yield. In proceeding with both research methods, it was acknowledged that some students would be less able to connect with their introspective thoughts. An additional factor considered regarding reliability pertained to the willingness of participants to disclose their emotions (Foddy, 1993). Consequently, the data collected from student participants was governed, to a great extent, by their emotional intelligence, with responses ranging from literal to more deeply philosophical. Further reflection on this aspect of the study will follow in the discussion chapter.

3.6 Considerations regarding data validity: discrepant data

Exposing discrepant data is important, for the reality with educational pedagogy with even relatively small numbers of children is that success is often variable. In addition, the surfacing of views that do not reflect the trend provides research with integrity (Wilson, 2009). Cohen et al (2011) suggest that the researcher should actively seek to locate the “…disconfirming cases” (page 240) in order that a theory can be more successfully elucidated. To properly evaluate the findings
for each research question, data that suggests otherwise must be addressed, even where these are minority perceptions.

### 3.7 Data coding strategy and initial analysis

The use of codes permits the researcher to secure a greater thematic understanding of a data selection. By generating groupings, pieces of data can be classified by a process of identifying items with similar themes (Hall, 2008), in turn, leading to categorisations determined by a higher conceptual level (Saldaña, 2013; Yin, 2011). It is the emergence of themes that enable a researcher to fully analyse the meanings suggested by data.

Initially, the perceptions of the students were collated and sorted in order that their thoughts could be made ready for data analysis. Selecting emergent codes, drawn from the data itself, rather than imposing a pre-determined list of codes was a method judged to sustain faithfulness to the data origins. The list of codes used to categorise student perceptions is below. There are many codes, but this method intended to be inclusive. Any preclusion of data would reduce the authenticity of the study.

**ASSIGNMENT OF CODES:**

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**Code assignment**

Conceptual frames were later established from the sets of codes that best indicated where personal growth and the emergence of a co-operative group were perceived by the students to be taking place. The construction of these conceptual frames was in accordance with the strategic imperative of Bryman and Burgess (1994) and Yin (2011) to move data to a higher level, and was based on the definitions provided by scholarly reading. For example, the literature defined personal growth as comprising perceptions of achievement and courage, among other the other themes within the frame.

<table>
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<tr>
<th>THEMATIC FRAMES</th>
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<tr>
<td><strong>Personal Growth: Key Indicators</strong></td>
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<tr>
<td>Achievement; Courage/Endeavour; Confidence; Leadership; Personal Strength</td>
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<tr>
<td><strong>Co-operative Group Emergence: Key Indicators</strong></td>
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<td>Friendship; Interdependence; Trust; Team Work</td>
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**Thematic frames**

Each of these steps served as part of a heuristic methodology, leading to an increase in overall understanding.

**3.8 Retention of validity throughout the analysis**

Remaining faithful to the data was a primary concern of this research. Though the process of coding the data gathered from the students involved personal interpretations, there was a sustained effort to ensure these broader claims did not deviate from the original data sources. In noting the "fundamentally interpretative" nature of qualitative research, Creswell (2003) warns that "...the personal interpretation brought to qualitative data analysis" is an ineluctable reality (page 182). Even so, clarity can be retained when
acknowledging this personal connection with the data and demonstrating an honest appraisal.

3.9 Data collection summary

In total, twenty-six questionnaires were completed by student participants. These comprised reflections on the four adventurous activities in which they took part. In addition, two focus groups with students provided qualitative data from semi-structured interviews. Two interviews with centre instructors and one testimony from the students’ form tutor comprise the data collected from adult respondents. The data collected from each aspect of the original research will be analysed and discussed in chapter five.

4. Presentation of results

4.1 Introduction

In the first instance, the presentation of results will comprise the tabulation of student questionnaire responses. These have been sorted according the activity in which the students participated. There are four tables corresponding to the following activities: mountain walk; caving; climbing and abseiling; and river walk. In line with the ethical strategy detailed in the methodology, each student was assigned a numerical code for identification purposes.
The codes highlighted green indicate student perceptions within the personal growth conceptual frame. Purple codes indicate student perceptions about the emergence of a co-operative group. Red codes indicate fear as part of students’ perceptions. The prevalence of each of these indicators and the implications of their presence will be analysed fully in the next chapter. The data is presented on the following pages.
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<th>STUDENT IDENTIFICATION</th>
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Questionnaire analysis: Mountain Walk
### Questionnaire analysis: Caving

#### STUDENT QUESTIONNAIRE ANALYSIS

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### STUDENT QUESTIONNAIRE ANALYSIS

#### CODING CHART

**ACTIVITY: CLIMBING ABSEILING**

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**Questionnaire analysis: Climbing Abseiling**
## Questionnaire Analysis: River Walk

### Coding Chart

**Activity: River Walk**

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5. Analysis and discussion

5.1 Objectives

The collection of data will be discussed within the context of each of the research questions, and this chapter is divided accordingly. The original testimony of the students is used extensively to inform a critical understanding of all facets of the research inquiry. The voices of the students are accompanied by the perspectives of adult participants.

5.2 Research question 1: What perceptions do students hold of their experiences during, and after, an adventure-based residential?

In observing the questionnaire data that is collated in tables on pages prior, it is apparent that students perceive personal growth to have occurred in all four activity disciplines. Most significant is the prevalence of these codes in responses linked to participation in caving, and climbing and abseiling. There are fewer indicative codes to be found in responses associated with the mountain walk and river walk.

Many students identified that what they had learnt about themselves was that they were more courageous, confident, or more willing to embrace endeavour. For example, student 17 suggested:

"That I have the courage and can do many things."
Student 19 reasoned that:

"It might help to try things that you’re afraid of so you can defeat them."

In relation to the climbing and abseiling activity, it is notable that a majority of students recalled the most memorable aspect of their experience as an instance of achievement. Given the variation in actual accomplishments during this activity, these perceptions buttress the Challenge by Choice ethic advocated by Panicucci (2007), debated in finer detail as part of the analysis pertaining to research question two.

During one of the focus group interviews which took place after the adventure experience, student 8 cited the following:

"I think it got rid of ‘I’m the best’; ‘I’m amazing’ and made us all a bit more humble and tolerant of each other…"

Humility and tolerance are values key to educational and societal progress: their keen acceptance by students in year seven fortifies a rationale for K. Secondary School in sustaining an adventure programme.

There can be little doubt that the level of a student’s emotional intelligence is a significant factor in both questionnaire and focus group responses. Many students were cognizant of the way that their experiences affected them, as described by Wharam (2009). That
adventure education purports to be an inclusive, holistic and non-judgemental pedagogy goes some way to explain the following perception from student 18 about her caving exploration:

"I felt like a bird (free) because I did something I didn't want to and ended up loving it like a bird learning to fly."

The provision of a metaphorical response, substantiated by the parenthetic qualification ‘free’, typifies the strength of the connection to what has been learnt experientially, and demonstrates the indissoluble link between experience and emotion, as discussed by Blacker (2001).

The review of literature identified the significance of the natural environment in personal growth experiences. There is, however, a paucity of data to corroborate this significance. In an evaluative sense, this may be the result of questions that did not require students to reflect upon this factor directly. Further research may provide clarity to this question. Though the students’ responses did not recognise its impact, centre instructor A credits the outdoors as conducive to personal growth experiences:

"...the environment is the 'wow!' factor, and the ‘wow!’ factor is what triggers the personal development [...] It’s the unfamiliarity that turns on their attention and takes them out of their comfort zone."

5.3 Research question 2: In what ways can the adventure context present opportunities for personal growth?
Personal growth opportunities took many forms during the residential week. In most cases, the novelty of the task being undertaken allowed students to identify their learning from new experiences, a pattern familiar to Kolb’s theorised Experiential Learning Cycle (1984).

It is important to revisit Challenge by Choice, and its inherent importance to a student’s decision-making process during adventurous activities. Student 3 suggested that:

“The climbing wall really challenged me. It inspired me to not just do the minimum but to expand me a lot more.”

The notion of expansion invokes the research undertaken by Miles and Priest (1990) in relating a burgeoning sense of self to the purpose of adventure programming. Furthermore, student 3 depicted the conditions in which challenges could be undertaken:

“…you’re safe and you can do it, and you’re able to push yourself.”

This perception echoes the analysis of Sugerman et al (2000), in which both physical and emotional security grants participants safe entry into their challenge.

One of the controversies associated with experiential learning highlighted in the review of literature dealt with the transferability of
learning into other contexts. Student 22 noted the following observation during a focus group interview:

"My PE teacher told me that my confidence had got better after the trip."

Though this is only one indication of learning transfer, additional comments by students suggest the transfer of values into their everyday lives. It is clear that further research would be necessary to validate this perspective, and thus likely to involve a much larger data sample.

One of the most compelling aspects of the questionnaire data is the students’ recollection of fear as part of their adventure experiences. The questionnaire data charts that relate to caving, climbing and abseiling exhibit an abundance of these codes. This prevalence shows fear to be an important dynamic in the adventure experience, for where it is present, so, too, are codes relating to personal growth. It is the perceptions of fear that seem to have facilitated the liminal experiences, as described by Frost and Hirsch (2011). In turn, these create situations of learning where personal growth can take place. Furthermore, it is the invocation of courage that enables the epiphanic moments to be forged through daring, a view represented by the students’ responses and matched by the research of Kiros (1998).

Drawing on each of these perceptions, it is possible to revisit the constitution of personal growth with empirical analysis. Hopkins and Putnam (1993) suggested it was the outcome of challenge, and the student voices in this study testify to this definition. The scope of the research has provided an opportunity for the birth of an original definition. Within this particular adventure education context, personal
growth may be defined as: "what I have learnt from my experience, and how it has changed me."

The value of courage can be transformative. It can brace children with the strength of will to re-engage with a society that discourages and disengages, as described by Yang et al (2010). It would be difficult, in my view, to argue the case for a more apposite creed as students enter key stage three.

In more general terms, students seem to have credited the adventure experience with what can broadly be portrayed as an emergence of character. During a focus group interview, student 17 realised that:

"...before you are all closed up inside your own little world but you start to open up as the week goes, and once the week has gone you’re fully open."

This comment bears the intuitive awareness of a student ready to be more daring. Being 'fully open' is, indeed, a vulnerable position, yet courage, achieved through adventure, may have supported this reconciliation.
5.4 Research question 3: Does adventure education additionally support the emergence of a co-operative group?

It is necessary to look again at the dynamic of co-operative groups put forward by Jolliffe (2007). The definition of "positive interdependence" (page 3) will aid the contextualisation of students’ perceptions relating to this question. In discussing how responsibility engenders team work during the river walk activity, student 25 observed:

"...they have to trust you."

The steadfastness that trust provides is indicative of an emergent symbiosis between students, leading to an emotional investment in the efforts of each other. These altruistic actions are at the heart of the "positive cathexis" description put forward by Johnson and Johnson (2008, page 32), where encouragement from the group in the effort of an individual appears to bolster their assault on the challenge.

Student 24 identified with this empathetic response of others as a pathway to her own success. She recalled the following event from her participation in the caving activity:

"...people are at the other end and cheering you on – even if you know you can do it you get really scared because you’re in a small space – but they understand it and then they help you."
This positive interdependence as the effect of shared empathy bears a close association with the research of Smith (1998). It also suggests how the humanitarian values espoused by Doddington and Hilton (2007) can sustain a group during challenging situations.

Adult perspectives on this question provide analogous accounts. In her testimony, the form tutor to the group recalled how "supportive" and "encouraging" the students were of each other. Centre instructor J spoke of the way in which the river walk experience crystallises the essence of mutual support:

"Even the act of holding out your hand to someone is metaphorical for life skills. You are literally holding out that hand for someone else – and you’re consolidating that in the adventure experience...”

Each of these sentiments, shot through with empathy and compassion, are reflective of an emerging co-operative group. It is almost certainly the adventurous activity that facilitates this co-operation because of the students’ perceptions of the challenges presented to them. It is, then, the collective struggle which has the capacity to become a meaningful motif for all: a point of reference for future endeavour.

The perceptions of the students show their relationships to be much tighter as a consequence of their shared experiences. It may be reasonable to suggest that, with time, this might support their relationships through periods of hardship and flux. Once more, further research would be required to validate this hypothesis.
5.5 Drawing meanings from discrepant data

In response to the question: "what did you learn about yourself today?" two students offered the following responses, written after participation in the caving activity:

"nothing that I didn’t already know." (student 4)

"I am good at playing pranks on people." (student 15)

These are among the limited examples of data that harbour either ambivalence or disengagement. It can be inferred from these particular comments that the students perceived a weak relationship to the activity. However, one of the ambiguities of the questionnaire data is that, in such cases, it is difficult to be definitive about meanings. The inclusion of the word ‘pranks’, for example, connotes horseplay, though, equally, it could have been a description of an important part of this student’s adventure.

Additionally, a small number of students were unable to offer a response to question five: ‘How do you think this experience might help you at school or in your life outside school?’ Student 13 wrote:

"I don’t know really."
This question sought to make a connection between activity participation and the transferability of learning into other contexts. A number of reasons may be offered in explanation of this and other, thematically similar responses. First, adventure challenges may not register as highly with individuals who already have high self-assurance. Therefore, there may be limitations in terms of personal growth opportunities for these students. In his capacity as an instructor, A explained one reason why adventurous activities may not expedite the process of confidence acquisition for all students:

“There are always confident kids already, like the captain of the football team [...] he’s not going to get out of it what the quiet kid who has never been swimming before is going to get out of it.”

As suggested by Payne and Owen (2006), a second reason might be that the transfer of learning may be problematic for students as they seek to make connections between experience and meaning. Thirdly, the programmatic content of the activity may be in need of revision, with a potential requirement for challenge adaptation for some students. Finally, the immediacy of this question following the activity may have precluded its full comprehension at the time of asking.

6. Conclusion
6.1 A reflection upon research aims and questions

The study findings would seem to validate the content of each of the research aims and questions. In designing appropriate data-gathering instruments, they have each been answered with a high degree of clarity. Presenting children with the opportunity to explore their perceptions has been an achievement in which lies personal rewards.

6.2 Implications for practice

This study has demonstrated how children attach values to their experiences. In the same way, it is now culturally important to foster a school environment that reciprocates those same values: encouraging children to be courageous in their learning and in their lives beyond school; to accept that failure is occasionally part of the topography of life, and that this, too, is a gainful learning experience; and to know that the act of placing of one’s self in a position of vulnerability is not a weakness but an action that demonstrates personal strength.

This study provides a clearer picture of the reasons why adventure education should be placed at the heart of a curriculum designed to meet children’s social, holistic, and spiritual needs. Supported by the findings, recommendations to the school’s leadership will now include: a redrafting of the Trips and Visits policy to include a more explicit rationale, specific to this learning activity; a voluntary presentation of study findings to school staff that may encourage support for the
philosophy behind residential experiences; and a freer acknowledgment that outstanding practice can be observed in learning and teaching beyond the classroom.

6.3 Extending the study

Beyond the scope of the objectives of this study, an opportunity has emerged to conduct further inquiry. This research extension would include a longevity study, investigating how the metaphors created by the group during the adventure residential retain their usefulness to its members over a significant period of time. Once again seeking students’ perceptions, but this time in key stage four, the questions would focus on the developmental significance of their personal growth experiences. The stance of the researcher must always be to guard against prejudgement; however, the findings from such a study have the potential to add credence to an adventure education rationale.

6.4 The spirit of adventure

In some ways, the analytical points drawn in the discussion of this study cannot represent the entire story. In part, this is because students’ complete realisation of their achievements and personal growth are destined to be time-delayed; incomplete, too, because part of each child’s adventure will stay with them, out of the reach of
analysis. Uniquely memorable, this is, perhaps, how they should remain.

Today, shaping a curriculum that continues to be appropriate for children is a sizeable task for schools, made no less substantive by a society that shields its children from the risks that may actually benefit learning. At this juncture in history, where perceptions of danger in the modern age abound, opportunities for adventure in children’s lives are increasingly precious, and schools must respond.

This study does not espouse adventure education as a panacea for modern life; however, its meaningfulness and justification lies with the perceptions of children, who adjudged the adventure experience wholly edifying and affirmative. Whether or not this bears the stamp of outstanding practice will remain the prerogative of subjective values.

The positive values that have emerged from this study underpin a rationale for adventure and a measure of its legacy. The greatest of these values is this: whether in their personal daring or by the strengthening of trust in one another, adventure enables children to recalibrate their sense of self-worth, elevating a recognition of what is possible and achievable when challenge meets courage head-on. Listening to their voices has provided a fresh understanding that learning through adventure is a worthy aim: it is atop the foundations of their collective testimony that these conclusions now rest.

Adventure calls children to explore the wilds of the mountains and of their hearts. For those who, in the autumn of 2012, undertook their own adventures in the mountains of south Wales, this was no small gift.
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