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**Personality, Motivation and Level of
Involvement of Land-Based Recreationists in
the Irish Uplands**

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Abstract

This research examined the influence of personality traits and motivational factors for participation in land based recreation in the Irish uplands. During the Summer and Autumn months of 2011 a total of 460 (males; n=268, females; n=192) onsite upland recreationists completed a survey instrument designed to assess their; motivations for participation, personality traits, level of involvement and perceived identity levels for their activity.

The results identified that Hill Walking is the most popular land based activity undertaken in the Irish uplands (41% of all recreationists). There was no difference ($p=0.331$) or relationship ($r=0.046$) between the personality traits of the recreationists and their choice of upland activity. The main reason cited for participation was to be in Nature/Environment (mean 12.27, \pm SD 2.58), while Mountaineers were the most motivated recreationists (mean 83.70 \pm SD 9.64) and had the greatest level of involvement (mean 21.40 \pm SD 2.63) with their activity. There was no difference or relationship found between perceived identity and activity ($p=0.188$, $r=-0.029$), personality ($p=0.412$, $r=0.033$), motivation ($p=0.078$, $r=-0.87$) or level of involvement ($p=0.121$, $r=-0.074$).

The results from this study can have useful implications for policy makers in the fields of health and tourism, park managers, researchers and those in the retail and tourism industry who are interested in providing products and services for upland recreationists in Ireland.

Acknowledgements

In the words of Jack Bergin and Milo O’Rathaille (1999), writing and rewriting this thesis was just like climbing a mountain!

“Just as the mountaineer or hill walker see’s the outline of the sky above them, giving them an illusion of a summit nearly reached only to have another skyline appear beyond it, with each draft of this thesis another slope to be climbed!” (pg. i)

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Glossary of Terms

| Type of Walking | Definition | Equipment Needed |
|------------------------|---|---|
| Strolling | Walk at al leisurely, idle pace. | None |
| Rambling | Habitual roaming, wandering. Can be lengthy and digressive. | Walking boots |
| Trekking | Walking through mountainous areas for the purpose of exploring and enjoying the scenery. Long and difficult journey. | Walking boots, Rain Jacket Rucksack, Appropriate attire |
| Hill-Walking | Walking and hills and mountains. | Walking boots, Rain Jacket, Rucksack, Appropriate attire |
| Rock Climbing | Rock climbing is an activity that participants climb up, down and across either natural rock or cliff faces or on an artificial rock wall. The purpose of rock climbing is to reach the summit of a predefined route without falling. | Walking boots, Rucksack (containing ropes and climbing/camping gear) Appropriate attire |
| Mountaineering | Mountaineering or mountain climbing is a hobby, profession or sport that includes the combination of technical climbing of mountains, hiking and/or skiing with the purpose of reaching the summit. | Walking boots, Rucksack (containing ropes and climbing/camping gear) Appropriate attire |

Chapter 1

Introduction

1.0 Introduction

Blessed with such a diverse landscape, the island of Ireland is a paradise for a broad range of outdoor activities with mountains, rivers, forests, cliffs and beaches all creating the perfect bedrock for outdoor pursuits. As the popularity of outdoor recreation and its associated activities continues to increase, new forms of activities continue to emerge (Plummer, 2009).

1.1 Leisure and Recreation

Once the privilege of the elite, leisure has largely become the prerogative of the masses (Pigram & Jenkins, 2006; Torkildsen, 2005). Described by the Dictionary of Sociology (2005, p. 251) as “free time after the necessities of life have been attended to”, leisure in developed countries has become a fundamental part of people’s lives. Derived from the Latin word ‘licere’ meaning to be permitted and the French word ‘loisir’ meaning free time (Torkildsen, 2005), the pursuit of leisure provides people with more than something to do in their free time. It provides people with a means of coping with stress and unexpected life events (Coleman & Iso - Ahola, 1993; Iwasaki & Mannell, 2000).

At an individual level leisure is very much dependent upon the individual’s social and subjective circumstances (Pigram & Jenkins, 2006) consisting of relatively self determined activity choices (Torkildsen, 2005). For most people leisure is closely associated with an individual’s uncommitted time. Recreation is interchangeably used with leisure (Sirgy, 2010). Derived from the Latin word ‘recreatio’ and ‘recreare’, meaning to refresh and restore (Torkildsen, 2005), recreation is seen as fusion between play and leisure (Kraus, 2001) that enables individuals to restore psychological homeostasis (Shivers, 1967, cited in Torkildsen, 2005) by seeking activities that satisfy certain psychological goals (Torkildsen, 2005).

1.2 Outdoor Recreation

For over fifty years outdoor recreation has being part of the leisure studies lexicon and can be defined as “voluntary participation in free time activity that occurs in the outdoors and embraces the interaction of people with the natural environment” (Plummer, 2009, p. 18). Apart from the obvious physiological benefits of outdoor recreation participation being active in the outdoors has other positive benefits for an individual’s psychological state as it provides opportunities to enhance one’s knowledge

about the environment, while providing opportunities for sociological and spiritual values (Jenson, 1995).

According to Cordell (1999), the area of outdoor recreation is complex as it covers a wide variety of activities and interests ranging from sailing to mountaineering to bird watching. Many of the different outdoor recreation activities take place in a variety of settings with each having their own individual set of characteristics. Places such as the McGillicuddy Reeks in County Kerry and the Wicklow Mountains National Park can provide a variety of characteristics to support a range of outdoor recreation activities. People choosing to engage in such activities may even choose to participate in more than one activity on any given day.

Outdoor Recreation provides people with direct contact with nature's natural resources (Plummer, 2009). Recreation and nature based tourism has been around for as long as we have, but recreation was not formally recognised until more recently (Cordell, 1999 and Manfredo Driver & Tarrant, 1996). Manfredo *et al.*, (1996) suggest that it was not until the late nineteenth century to early twentieth century that outdoor recreation became formally recognised. During this time the majority of people were still living in rural areas and working off the land so the thoughts of spending any free time they had visiting the lands was not appealing. As stated earlier, the study of outdoor recreation "has been part of the leisure studies lexicon for the past fifty years" (Plummer, 2009, p.18) during this time many definitions of outdoor recreation have emerged. For the purpose of this study "outdoor recreation refers to a broad spectrum of activities participated in during leisure time purely for pleasure" (Ibrahim and Cordes, 2002, p.333) and that involves an "interaction between the participant and an element of nature" (Ibrahim and Cordes, 1993, p13).

1.2.1 Origins of Outdoor Recreation

According to Cordell (1999), in America during the early twentieth century outdoor recreation opportunities were in abundance. There were many opportunities for people to take part in activities such as fishing, hunting and boating. These opportunities existed because outdoor recreation spaces at the time were plentiful and not because of any government interventions. The establishment of the Forest Reserves in 1891 set about a pattern for government action to manage recreation in America. This was soon followed by the establishment of the Forest Service in 1905, the Agriculture

Appropriations Act in 1906 and the National Park Service in 1916. This concept of creating a National Park system had soon spread across the world with most countries establishing their own National Park system by the end of the twentieth century.

The onset of the Industrial Revolution brought about a number of changes for people living in the United Kingdom and Ireland with more and more people moving out of the countryside and into towns to take up employment in the factories (Plummer, 2009). By 1911 eighty percent of England's population were described as "urban dwellers" (Parker and Meldrum, 1973, p 30). Tranter (1987) and Plummer (2009) reported that the Industrial Revolution created a change in attitude of the people toward the countryside and the importance of natural open spaces and as a result, a few visionaries set about working to preserve them. Despite Wordsworth's 1810 suggestion that the Lake District in the United Kingdom should become National Property it was not until 1951, after the formation of the Town and Planning Act in 1947 which developed National Parks and Access to the Countryside Act and the National Parks Commission were both formed in 1949, that the Lake District became a National Park (Parker & Meldrum, 1973).

Killarney National Park was Ireland's first National Park. Originally private land, the Muckross Estate (covering nearly eleven thousand acres) was donated to the Irish State in 1932 by Mr and Mrs Bourn and their son in law Arthur Vincent, after the death of their daughter and Arthur's wife in 1929. This act of generosity created the establishment of Ireland's first National Park by passing the Bourn Vincent Memorial Park Act in 1932. While originally under the control of the Commissioners of Public Works the Vincent Bourn Memorial Park operated as a working farm open to visitors until 1970 when the Irish Government looked at international practices for the development of National park. With the increased wealth in the Irish economy the Irish Government increased the funding to the Vincent Bourn Memorial Park and added almost fifteen thousand hectares under the name of the Killarney National Park (Department of the Environment, 2011).

During the 1970's there was a considerable expansion of infrastructure and provisions for outdoor recreation, much of which is still evident today (Plummer, 2009). The demands and attitudes of the 1970's user differed to the modern day user. In the 1970's people wanted outdoor recreation sites to mirror the amenities that they had in the

towns, they expected high levels of development and maintenance at sites, they would arrive by car for the primary function of passive recreation (mainly walking and picnicking), would not venture more than a mile or two from the car and would stick to managed tracks (Pritchard, 2009). Since the 1970's and 1980's there has been a huge increase in user numbers of outdoor recreation (Ibrahim & Cordes, 2002; Pigram & Jenkins, 2006; Plummer, 2009). This can be attributed to a number of factors such as more disposable income, people having more active lifestyles, increase in free time, a larger urban population and an increase in car ownership (Plummer, 2009). The modern user now comes well equipped for active recreation and they use the Irish uplands to participate in a wide variety of activities such as mountaineering, climbing, trekking, hill walking, rambling, strolling, mountain biking, and orienteering (Comhaile-Na-Tuaithe, 2006; NWWAC, 2007).

1.2.2 Growth of Outdoor Recreation Participation in Ireland

Outdoor recreation has now spread across Ireland. Many towns and cities have retail premises that provide for outdoor recreation clothing and equipment. There is a growing number of active clubs and organisations, such as Rathgormack Climbing Club, Tipperary Hill Walkers, Wexford Walking Club, Scouting Ireland, Failte Ireland Initiatives and Mountaineering Ireland. Mountaineering Ireland represent over one hundred and thirty mountaineering clubs in Ireland and currently have over nine thousand five hundred members, which is estimated to be ten per cent of all hill walkers (MI, 2009). Ireland also has an extensive set of networks of long distance trails such as the Wicklow Way (Bardwell & Megarry, 2008), and the Kerry Way which is the longest signposted walking trail in Ireland covering two hundred and three kilometres (Bardwell, 2005). There are also many commercial and state owned outdoor pursuits' centres (e.g. Dunmore East Adventure Centre and Shielbaggan Outdoor Education Centre) offering activities such as kayaking, rock-climbing, hill walking, nature trails, and sailing.

1.3 Walking in the Irish Uplands

From the earliest days humans have climbed hills and mountains. The Greeks and Romans climbed through the mountains to establish important trade routes while the Inca's conducted burials at twenty thousand feet in the Andes (Feher, Meyers, & Skelly, 1998). In every county in Ireland there is land that is above one hundred and fifty

metres, accounting for twenty two per cent of the total land mass in Ireland. Approximately five percent of land is above three hundred metres, with roughly three per cent of land above six hundred metres (Nugent, 1996).

Due to the diverse landscape of the Irish countryside, Ireland's uplands provide opportunities for all abilities from recreational walking (e.g. along the upper and Lower Lakes of Glendalough), to climbing (e.g. the Comeragh Mountains) and mountaineering (e.g. the McGillicuddy Reeks). According to Nugent (1996), five of Ireland's six National Parks are in the uplands regions (above 300 metres).

During the Great Ice Age mountains in Ireland experienced phases of glaciations forming impressive glacial corries, such as at Mangerton in Kerry and Coumshingaun in County Waterford (Lynam, 1994). Erosion by valley glaciers created the 'U' shaped valley's of the Wicklow Glen's and rolling hillsides in the Knockmealdown Mountains (Lawton, 2000), providing the perfect terrain to attract a diverse range of people and ability levels. The gentler, lower, more rounded hillsides provide opportunities for relatively easy walking activities while dedicated hill walkers and climbers who enjoy more energetic climbs can scale the impressive mountain peaks and cliffs (Corcoran, 1997; Lawton, 2000; Lynam, 1994). It is in these hillsides that an abundance of trails and loop walks have been established.

There are many agencies that have played key roles in the development of walking trails in Ireland. At a national level the Department of Tourism, Culture and Sport (formerly the Department of Art, Sport and Tourism) is responsible for the Irish Sports Council and Bórd Fáilte, who in turn work with regional and local organisations such as the National Waymarked Ways Committee and Local Sports Partnerships establishing mechanisms to develop coordinated approaches to the development of walking trails in Ireland. The Department of Environment, Heritage and Local Government is responsible for Ireland's National Parks and Wildlife Service ensuring that the development, management and maintenance of trails while ensuring that environmentally sensitive areas remain protected.

1.3.1 Recreation in the Irish Uplands

The increase in demand for experiencing nature and the potential for natural tourist consumption (Breejen, 2007) has turned the Irish countryside into a key tourism area

(Failte-Ireland, 2007). The economic value of recreation in the Irish Uplands in 1997 was estimated to be worth approximately one hundred and fifteen million Irish Pounds (Bergin & O'Rathaille, 1999). By 2007 this value was estimated to be worth three hundred and seven million Euro's (approximately two hundred and forty three million Irish Pounds, NWWAC, 2007). In 2002 recreational walking far exceeded any other form of physical activity in Ireland with almost three quarters of the adult population reporting that they have walked for recreational purposes in the three month period of June to August 2002 (Curtis & Williams, 2002). In 2008 just over two million trips were undertaken by Irish residents for the purpose of hiking/walking in Ireland (Failte-Ireland, 2009), with eight hundred and thirty four thousand visitors to the Irish shores for the purpose of walking/hiking during 2009 (Pritchard, 2009).

While the biggest challenge of any serious climber is to summit a high peak in the Himalaya's, the vast majority of visitors to the Irish uplands engage in much more sedentary walking (Curtis & Williams, 2002). For most visitors to the Irish countryside the standard routes in the uplands provide opportunities for adventure while engaging in physical activity. Public and private organisations are beginning to recognising the huge potential of the Irish uplands for commercial gain. Companies such as Mountain Zone in Dunmore East, offer families and groups the opportunity to experience the wild and dramatic landscape of the Comeragh Mountains (Whelan, 2011), while County Councils are increasingly using the uplands in advertising in local (e.g. New Ross Echo's Spring Breaks, Spring Breaks, 2011) and national newspapers (e.g. Go Travel Supplement in the Irish Time, Times, 2012) showcasing their natural landscape to pull recreational walkers to their locality. The popularity of walking in the Irish uplands is also evident by the number of walking festivals and events around the country each year. During 2012 a number of walking festivals are taking place including the Glen of Aherlow Winter Walking Festival in January, the Dingle Walking Festival in February and the Connemara Four Seasons Walking Festival in March (Discover-Ireland, 2012).

1.4 History of Access to the Irish Countryside

Following the publication of Northern Ireland's Countryside Recreation Strategy (a framework to maximise current and future opportunities for participation in countryside recreation activities, while striving to conserve and protect the natural environment and its resources) the National Countryside Recreation Strategy (NCRS) in Ireland was

established (Comhaile-Na-Tuaithe, 2006). Unlike the United Kingdom and other European countries, Ireland has no legal ‘rights of way’ act. With only point seven per cent of the land in Ireland protected by National Park status, the majority of land used for the purpose of walking and outdoor recreation is privately owned. This has created points of conflict between land owners and recreationists (Old Head of Kinsale in County Cork, Oghool Beach in County Mayo and Slyne Head Caorán Mór in County Galway) with landowners citing insurance problems, damage caused by walkers, and privacy as their main reasons for denying access to their land (Keep-Ireland-Open, 2011). The development of the NCRS by Comhaile na Tuaithe (the Countryside Council) for the Department of the Environment, Community and Local Government is a key player in the development of future and existing trails.

The NCRS oversees the development of programmes such as: the Rural Social Scheme, the LEADER programme and the National Rural Development Plan. These programmes;

- establish links between landowners, recreationists and local government;
- promotes awareness of responsible use of the countryside for recreational purposes;
- protects the natural, cultural, environmental and built heritage of the countryside;
- encourages farmers and other landowners to develop rural enterprises based on outdoor recreation (enabling them to benefit financially from outdoor recreation) and,
- helps to develop and maintain infrastructure that is both general and specific to the activities themselves

(Comhaile-Na-Tuaithe, 2006).

From March 2008 under a newly initiated ‘Walks Scheme’, participating landowners may receive payment for the development, maintenance and enhancement of walking routes that pass through their land, including Looped Walking Routes and National Waymarked Ways. While initially only available in twelve areas of the country where National Recreation Officers are employed it was extended to cover forty nine approved walking routes by the end of 2010. By the same period one thousand, eight hundred landowners received payment for such work (The-Walks-Scheme, 2008).

Following the creation of the Long Distance Walking Routes in 1979, thirty three Way Marked Way walking routes were developed over a thirty year period (Failte-Ireland, 2009). Since 1979, times have changed as have the demands of tourists and Irish recreationists. In response to such changes a sub-committee of the Irish Sports Council, the National Waymarked Way Advisory Committee (NWWAC) developed the 'Irish Trails Strategy'. The Irish Trails Strategy was developed to create, nurture and maintain a sustainable world class recreational trail network in Ireland catering for all abilities, while seeking to establish a diverse trail network that is among the best in Europe (The-Walks-Scheme, 2008). Previously the development of such trails lacked any coordinated strategic approaches, primarily relying on local and community initiatives. By 2006 Ireland had approximately eight thousand, three hundred kilometres of developed walking trails including the National Waymarked Way network, Sli na Slainte walking routes, pilgrim paths, forest trails and greenways (NWWAC, 2007).

1.5 Theoretical Studies

After the first known ascent to the summit of Mount Everest, by Hillary and Tenzing in 1953 (Egan & Stelmack, 2003), considerable research has been conducted to understand why people take part in upland, land based, recreation (Breivik, 1996; Delle Fave, Bassi, & Massimini, 2003; Ewert, 1985, 1994; Sleasman, 2004; Woodman, Hardy, Barlow, & Le Scanff, 2010). Theoretical studies of outdoor recreation participation evolved in the 1960's but the research was generally limited to specific activities such as hunting, fishing and camping (Cordell, 1999).

Derived by the workings of Driver and Tocher (1970) research in the field of outdoor recreation participation shifted from focusing on the activities and moved towards developing a greater understanding of the psychological profiles of the participants. According to Plummer (2009), this shift in focus has led to an abundance of research devoted to outdoor recreation participation from all three psychological fields (Behavioural, Social and Cognitive).

Research into outdoor recreation that adopted a behavioural approach advocated that individual's intentions to participate in specific outdoor recreation activities are determined by independent factors including attitude, subjective norms and perceived control (Ajzen, 1991; Ajzen & Driver, 1991, 1992; Baker & Crompton, 2000). Much of the research over the last thirty years has adopted a social psychological perspective as

academics recognise the importance of motivation, activity choice and location (Ewert, 1987, 1994; Ibrahim & Cordes, 2002; Iso-Ahola, 1980; Mannell & Kleiber, 1997; Walker, Hull, & Roggenbuck, 1998). Research in the cognitive field focuses on personality profiles of outdoor recreationists and how an individual's personality can influence activity choice (Driver & Knopf, 1977; Egan & Stelmack, 2003; Freixanet, 1991; Sleasman, 2004). Further details from these studies are reported in Chapter Two of this study.

1.6 Aim of the Study

While previous research in the study of outdoor recreation participants has focused on the personality characteristics and motives of experienced mountaineers (Ewert, 1985, 1994; Freixanet, 1991; Levenhagen, 2010; Loewenstein, 1999; Pomfret, 2006, 2010; Slinger & Rudestam, 1997; Sleasman, 2004; Woodman, *et al.*, 2010) no known study has been undertaken to understand the personality characteristics and motivations of upland, land based, recreationists in Ireland based upon their level of involvement.

The aim of this research is to investigate the personality traits and motivations of those who visit the Irish uplands for the purpose of land based recreation. The objectives of this research are to investigate:

1. The personality traits of the upland, land based, recreationists,
2. What motivates 'upland recreationists' to visit the Irish Uplands?
3. The Level of Involvement and Perceived Identity that upland recreationists have with their activity and,
4. The relationship between any of the following variables:
 - Personality and activity choice,
 - Motivation and activity choice,
 - Level of Involvement and activity choice,
 - Perceived Identity and activity choice and,
 - Level of Involvement and Perceived Identity.

Chapter 2

Literature

Review

2.0 Personality

Personality is notoriously difficult to define as there is no one definition that all psychologists would subscribe to (Malim & Burch, 1998). Every individual displays personality traits that make them unique as individuals (Carducci, 2009). However, it is the study of personality that allows researchers the opportunity to encompass all of the various psychological processes (perception, thinking, motivation and emotions) to develop a coherent picture of an individual's characteristic way of thinking, behaving and feeling (Malim & Burch, 1998).

For the purpose of this study, personality is defined as “the distinctive and characteristic patterns of thought, emotion and behaviour that make up an individual's personal style of interacting with the physical and social environment” (Smith, Nolen-Hoeksema, Fredrickson, & Loftus, 2003, p 452).

2.1 Personality Development

To understand personality one has to first look to the theorists who have shaped and guided our thinking about human development. Stemming from the workings of major theorists such as Freud, Piaget, Bandura and Erickson, research into personality has dominated psychological research for over one hundred years (Smith, *et al.*, 2003). While the workings of Freud no longer dominates developmental psychology as it once did, even his most stringent critics admit that his theory of personality development remains a milestone in psychological spheres (Dacey & Travers, 2002).

2.1.1 Psychoanalytical Approach

Adopting a psychoanalytical approach, Freud suggested that the mind is divided into three structures namely, the id, the ego and the superego, and that these structures appear as varying stages of a child's development (Dacey and Travers, 2002; Smith *et al.*, 2002). Each of the three structures of the mind are characterised in Table 2.1.

Table 2.1 Structures of the mind

| Structure | Description |
|---------------------|--|
| The id | The only structure present at birth. It includes basic instincts (e.g. need for food, drink, dry clothes and nurturance) and survives only to secure pleasure. |
| The ego | Central part of our personality. The rational part that does all of the planning and keeps us in touch with reality. It begins to develop from birth. |
| The superego | Toward the end of the first year our parents and others begin to teach us what they believe is right and wrong and expects us to begin to behave according to the principles they espouse. |

(Dacey and Travers, 2002, p. 28)

Once the battle between the demands of the superego and the id (with the ego struggling to keep a balance between the two forces) have taken place then personality begins to take shape (Dacey & Travers, 2002). Freud proposed that personality development occurred as individual's move through five stages, with each stage discrete from the other and based upon a pleasure centre (Feist & Feist, 2009). It is this pleasure centre that Freud proposed influences an individual's personality. If this pleasure centre is not fully satisfied then the individual cannot move onto the next stage thus leaving them fixated and unable to become a fully mature individual (Feist & Feist, 2009; John, Robins, & Pervin, 2008). Freud's Five Stages of Development occur as the individual reaches a specific age range starting with the Oral Stage, from birth to eighteen months old, passing through the Anal Stage (eighteen months to three years), the Phallic Stage (three to five years), the Latency Stage (five to twelve years) and finally reaching the Genital Stage, from aged 12 years and older. Freud proposed that it is during this time frame that personality is constructed (Dacey & Travers, 2002; Feist & Feist, 2009; Gleitman, Fridlund, & Reisberg, 2004; Smith, *et al.*, 2003).

2.1.2 Cognitive Developmental Approach

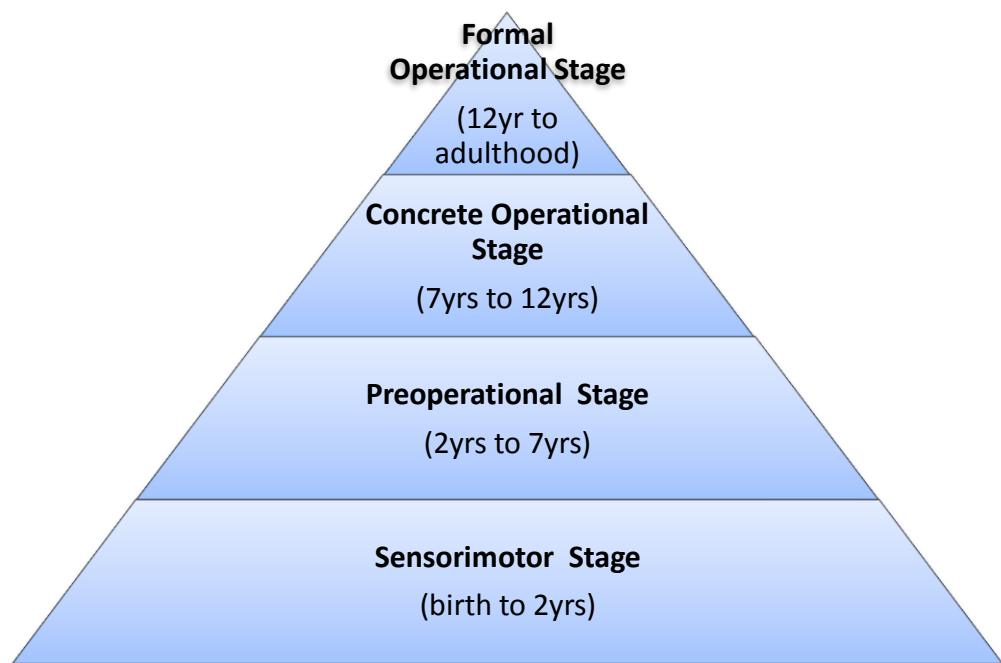
The revival of experienced based learning in the 1960's stemmed from the workings of a Swiss psychologist named Jean Piaget (1952, cited in Miles and Priest, 1999). Piaget's (1952, cited in Miles and Priest, 1999) study of the developmental stages of cognitive growth, resulted in him highlighting the importance of active learning and concrete

experiences. It is Piaget's (1952, cited in Miles and Priest, 1999) premise that there are four factors that influence mental development, namely:

- Physical maturation,
- Experiences that involve handling, moving and thinking about concrete objects,
- Social interaction (particularly with other individual's), and
- Equilibration which results from bringing the other three factors together to build and rebuild mental structures.

Like Freud, Piaget also proposed that personality development begins at birth and as individual's age they go through regular stages of development (Figure 2.1) that shape our personality (Feist & Feist, 2009).

Figure 2.1 Piaget's Model of Human Development



(Adapted from Grayson and Oates, 2004)

Piaget concluded that the first stage of personality growth occurs from birth until the child is two years old and they experience a stage of sensorimotor control (the infant progresses from the instinctual, reflective action that occurs at birth to the beginning of symbolic thought). The second stage, known as the Preoperational stage, sees the child begin to recognise the world through the matching of words and images, increasing their understanding of symbolic thinking. Stage three of the Concrete operational stage

proposes that the child is now able to understand and reason logically and classify objects into different groups/sets. The final stage, known as the Formal Operational Stage, suggests that from age twelve individual's thoughts becomes more idealistic, enabling the youth/adult to reason in more idealistic and logical ways (Brody & Ehrlichman, 1998; Dacey & Travers, 2002; Gleitman, *et al.*, 2004; Grayson & Oates, 2004; Smith, *et al.*, 2003).

2.1.3 Psychosocial Theory of Development

A psychosocial theory of personality development was proposed by Erickson after an extensive study of human development across numerous cultures (Dacey & Travers, 2002). Like Freud and Piaget, Erickson also suggested that from birth people pass through stages of development but unlike Freud and Piaget, Erickson suggested the importance of the role of social influences and environments on personality development (Smith, *et al.*, 2003). Erickson proposed that each stage is marked by an issue/conflict that needs to be resolved in order for the individual to be able to progress to the next stage (Dacey & Travers, 2002; Smith, *et al.*, 2003).

According to Phoenix (2002), external social influences on personality development do not begin to take effect until the child reaches the ages of six to eleven years old (middle childhood stage). By this stage children begin to expand their horizons by exploring their neighbourhood through the process of play and social interaction. Personality continues to be developed as the child reaches adolescence. During this period the influences of peers, friends and the local environment contribute to shaping their personality as they try to attain their self identity (Dacey & Travers, 2002; Phoenix, 2002; Smith, *et al.*, 2003). Erikson suggested that by the age of twelve the main task for the adolescent in this stage is to attain a state of self identity which is influenced more by peers/friends and their local environment than family (Dacey & Travers, 2002). It is during this period that several life decisions have to be made (e.g. employment, further education, relationships) even if the decisions are not embarked upon during this stage. Adolescence also provides the individual with the opportunity to try out various identities before finding their own niche within society (Phoenix, 2002).

2.1.4 Social Identity Theory

The Social Identity Theory (SIT) by Tajfel in 1971 was designed to address the social processes that take place as people come to identify themselves with particular groups and what makes them separate from others (Phoenix, 2002). Central to the SIT is the notion that self identities derive from the characteristics that society believes belongs to that group and the self descriptions that are used to describe that particular group (Feist & Feist, 2009; John, *et al.*, 2008; Tajfel & Turner, 1979).

Tajfel and Turner (1979) divided identity into two sub systems, personal identity (related to personal relationships with friends, family and peers) and social identity (wider social relations such as being English, male/female, white, etc). They proposed that a social group was two or more individuals who saw themselves as members of the same social category or who shared a common identification (e.g. climbers, hill walkers, mountaineers).

It was argued by Tajfel and Turner (1979) that people have a basic psychological need to satisfy one's own social identity by building social identities from being members of a group. It is only when an individual feels a sense of belonging within a group that an individual achieves a satisfactory social identity (John, *et al.*, 2008). It is the premise of the SIT that the drive to achieving a fulfilling social identity is at the route of all prejudice (Phoenix, 2002). According to John *et al.*, (2008), prejudice is used by individual's to bolster self esteem as it provides individuals with the opportunity to conceptualise out-group's as inferior. Although individuals become members of groups, Phoenix (2002) suggested that some members use social mobility to improve their status by changing their social group.

2.1.5 Social Cognitive Theory

Derived from the workings of Bandura (1977), the Social Cognitive Theory addresses the psychological dynamics that influence health behaviour and the methods required for promoting behavioural change (Bandura, 1998). A major concept of the Social Cognitive Theory is the ongoing interactions that take place between the individual and their environment. If one of the components change (environmental, cognitive and behavioural influences), the other components (personality and behaviour) are likely to also change (Bandura, 1977, 1986).

Bandura (1986) suggested that human behaviour is guided by one's own self efficacy (perceptions about their capabilities to perform a given task). The premise of the Social Cognitive theory is that, for individuals to achieve their desired outcome when performing a task, they will only perform specific tasks that they are confident they can perform well (Bandura, 1986, 1998; Slanger & Rudestam, 1997; White, 2008). Within this theory, confidence and consequence are represented by self efficacy and outcome expectancy (Feist & Feist, 2009; Maltby, Day, & Macaskill, 2010).

People who have greater self efficacy levels expand more effort on activities and challenges for longer periods, therefore they are more successful when trying new activities or behaviours (Feist & Feist, 2009). An individual's levels of self efficacy can be strengthened when that individual performs a task successfully (Bandura, 1986). It can also be strengthened when one witness's another person of a similar perceived ability successfully perform a task, upon receiving positive verbal feedback from competent others, and upon interpreting bodily signals such an increase in heart and respiratory rate (*ibid*).

2.2 Personality Traits

During our daily lives we use traits to describe one another and ourselves using an almost endless list of terms such as anxious, aggressive, introverted, lazy, boring and dull (Mischel, 1999). This trait attribution is regularly used not only as an explanation of an individual's behaviour but as the cause of one's behaviour. Describing an individual as 'acting in a lazy way' quickly changes to 'the individual is lazy', thereby changing the emphasis of the trait away from the behaviour to the individual (Brody & Ehrlichman, 1998; Mischel, 1999).

The original research on personality by Allport and Odbert in 1936 found over four thousand five hundred personality traits (Smith, *et al.*, 2003). According to Allport (Allport, 1937, cited in Mischel, 1999, p. 150) a trait is

“a generalised and focalised neuropsychic system (particular to the individual) with the capacity to render many stimuli functionally equivalent, and to initiate and guide consistent (equivalent) forms of adaptive and expressive behaviour”.

Believing that one's pattern of personality dispositions determines an individual's behaviour, Allport (1937, cited in Mischell, 1999) organised his traits into three levels

and concluded that individuals have highly generalised dispositions called cardinal traits (e.g. when an individual is solely focused on achieving their goal in life), less pervasive traits called central traits (most individuals' personalities are influenced by central traits, e.g. honesty) and finally more narrow, specific traits called secondary dispositions or attitudes (Allport, 1937; Gleitman, *et al.*, 2004; McCrae & Costa, 1997; Mischel, 1999). Allport (1937, cited in Mischel, 1999) believed that each individual has their own pattern of dispositions that is unique to them. Mischel (1999) suggested that it is these individual patterns of dispositions that determine one's behaviour. No two people respond identically to the same event, thus no two people are completely alike, making each individual unique.

In an attempt to devise formal methods for measuring and describing personality, psychologists first set to reduce the potential number of traits to a more manageable amount (Carducci, 2009). By obtaining a trait rating for each individual trait, Cattell (1943, cited in Digman, 1990) condensed Allport's four thousand five hundred personality traits into two hundred traits.

Through the distinguishing of common and unique traits Cattell (1943, cited in Digman, 1990) identified surface traits (e.g. integrity, honesty, curiosity etc) from source traits (e.g. ego strength – emotionality and neuroticism and dominance – submissiveness). Using a mathematical technique of factor analysis to identify source traits, Cattell subsequently identified patterns of correlations among his trait ratings yielding sixteen primary factors and eight second order factors (Digman, 1990; Feist & Feist, 2009; John, *et al.*, 2008).

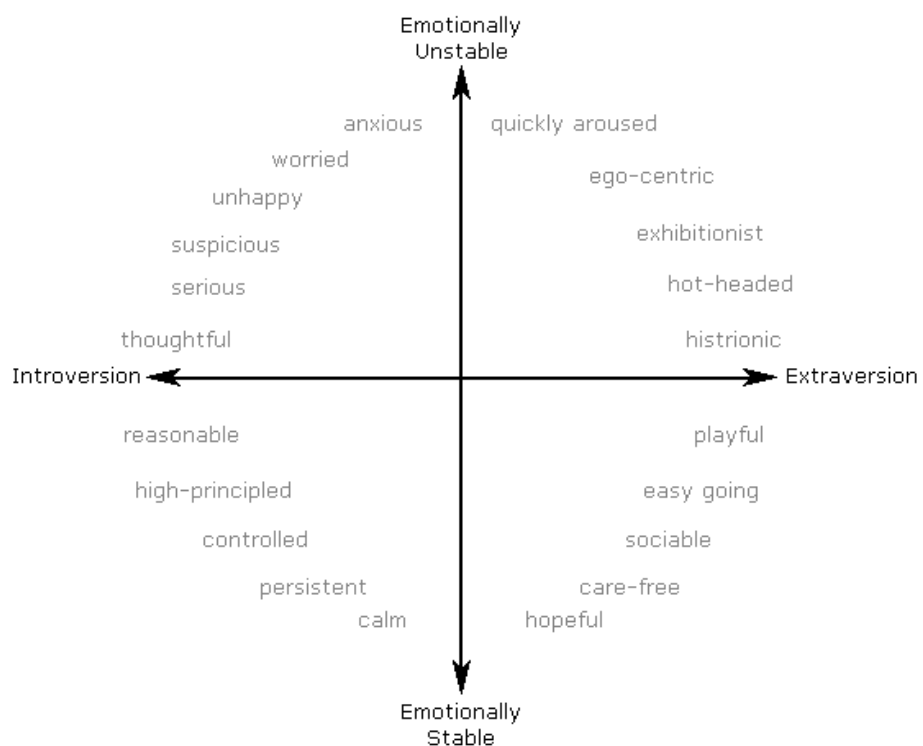
2.2.1 Eysenck's Dimensions of Personality

Using a similar procedure Eysenck (1961) began his study of personality and arrived at two personality factors, Introversion/Extraversion and Emotional Stability/Instability (Figure 2.2) which he called Neuroticism (Eysenck, 1961, 1991; Eysenck, Nias, & Cox, 1982; John, *et al.*, 2008; Maltby, *et al.*, 2010; McCrae & John, 1992; Saucier, 1998). According to Zuckerman (1994) individuals who are deemed to be Extraverts are characterised by greater strengths of inhibition in reaction to repetitive stimulation. Individuals who are introverts are extremely sociable, outgoing and crave excitement and the company of others (Houston, 2005). Those who are deemed to be introverts are characterised by having an excess of excitation (Zuckerman, 1994) and prefer to spend

their time alone (Houston, 2005). According to Houston (2005) and Digman (1990), individuals who are low on neuroticism tend to be calm, stable and even tempered, while those who are highly neurotic tend to be venerable, moody and anxious.

Eysenck *et al.*, (1982) believed that personality could be derived from different combinations of his two independent ‘super traits’, with individuals who score low levels of extraversion and high levels of neuroticism displaying different personality characteristics than someone who scores slightly different results (Digman, 1990; Houston, 2005). In 1982 Eysenck *et al.*, identified their third ‘super trait’ called psychoticism. According to Houston (2005), psychoticism is the tendency to be antisocial, cold and aggressive with those who score high for psychoticism displaying traits of aggression, having a lack of concern for others while being egocentric.

Figure 2.2 Eysenck’s Dimensions of Personality



Building on the workings of Cattell and Eysenck, the logic (adopted by Eysenck, 1961) of reducing the number of primary dimensions lead researchers (Costa & McCrae, 2008; Digman, 1990; Goldberg, 1993; McCrae & John, 1992) to conclude that Cattell’s sixteen personality factors could be compacted, and Eysenck’s ‘super traits’ could be developed. This resulted in the ‘Five Factor Model’ of personality (known as the ‘Big Five’ – see section 2.2.2) been confirmed (Digman, 1990).

2.2.2 The Five Factor Model

The Five Factor Model (FFM) of personality is “an empirical generalisation” about the co-variation of personality traits (Costa & McCrae, 2008, p159). The Five Factor Model (Table 2.2) is a general model that derived from the workings of Allport, and Cattell, and is used when describing the structure of personality (Baric, Burnik, Tušak, & Kajtna, 2004).

Table 2.2 Five Factor Model of Personality Traits

| Trait Dimension | Adjective Term |
|---|--|
| Openness to Experience (verses closed-minded) | Conventional – original Unadventurous – daring Conforming – independent Inartistic - artistic |
| Conscientiousness (verses undirectedness) | Careless - careful Helpless – self reliant Lax – scrupulous Ignorant - knowledgeable |
| Extraversion (positive emotionality) | Quiet – talkative Aloof – friendly Inhibited – spontaneous Timid - bold |
| Agreeableness (verses antagonism) | Irritable – good natured Uncooperative – helpful Suspicious – trusting Critical - lenient |
| Neuroticism (negative emotions) | Calm – worrying Unemotional – emotional Secure – insecure Not envious – jealous |

(Adapted from Mischel, 1999)

The five factors (Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism) are not only used in peer rating scales (Costa & McCrae, 2008) but have also been found in trait descriptive adjectives (Saucier, 1997) and in expert ratings of the California Q-Set (Saucier, 1998). The discovery and validation of the Five Factor Model is considered, among personality psychologists, to be one of the major breakthroughs of contemporary personality psychology (Smith, *et al.*, 2003) with proponents of the FFM arguing that all factors of personality are considered under the Big Five (Costa & McCrae, 2008).

Costa and McCrae (2008) agreed with Eysenck (1961) that personality traits follow a bell shaped distribution and are bipolar with most people scoring in the middle of each trait, with only a few people scoring at the extremes. The two strongest and most ubiquitous personality traits are Extraversion and Neuroticism (Feist & Feist, 2009). Individuals who score highest on Extraversion tend to be jovial, talkative, affectionate and fun loving (Costa and McCrae, 2008). In contrast, those who score low on Extraversion (Introversion) are more likely to be quiet, passive, lonely and reserved (Costa & McCrae, 2008; Feist & Feist, 2009; McCrae & Costa, 1997). Those who score high on Neuroticism tend to be anxious, self conscious and emotional compared with those who score low on Neuroticism who tend to be unemotional, calm and even tempered (Brody & Ehrlichman, 1998; Costa & McCrae, 2008; Feist & Feist, 2009; Mayer & Sutton, 1996; Mischel, 1999). According to Egan and Stelmack (2003) individuals who possess low levels of Neuroticism exhibit characteristics which display low reactivity to stressful situations.

According to Costa and McCrae (2008), people who prefer variety in their lives (e.g. entrepreneurs) as opposed to gaining comfort in being surrounded by familiarity (e.g. machinists) are distinguished by Openness to Experience. Those who score high for Openness to Experience will seek out different situations and relish in trying something new for the first time (Mayer & Sutton, 1996; Schmitt, 2008). These individuals are characterised by questioning traditions and values while those low on Openness to Experience tend to support traditional values and customs. Low scores of Openness to Experience demonstrate traits of being conservative, down to earth and lacking in curiosity (Brody & Ehrlichman, 1998; Costa & McCrae, 2008; Feist & Feist, 2009; Mayer & Sutton, 1996; Mischel, 1999).

Agreeableness distinguishes people who are ruthless from those who are soft hearted (Costa & McCrae, 2008). Those who score high in Agreeableness tend to be good natured, trusting and generous while those at the opposite end of the scale tend to be irritable, stingy and critical of other people. The final factor Conscientiousness describes people who are organised, ambitious and self disciplined. While at the opposite end of the scale individuals who score low on Conscientiousness generally are disorganised, untidy and lazy (Brody & Ehrlichman, 1998; Costa & McCrae, 2008; Feist & Feist, 2009; Mayer & Sutton, 1996; Mischel, 1999).

The FFM of personality refers to different aspects of behaviour and encompasses several levels of analysis (Feist & Feist, 2009). Openness to experience and Neuroticism refer to an individual's emotional or cognitive experiences, Conscientiousness is primarily task related with Extraversion and Agreeableness are primarily interpersonal factors (Brody & Ehrlichman, 1998).

Research associated with the FFM has been notably diverse. It has been used in featured case studies (Costa & McCrae, 1995; 1998; Goldberg, 1993; Schedler & Westen, 2004; Schimmack, Oishi, Furr, & Funder, 2004) and in studies of diverse populations (Feingold, 1994; McCrae *et al.*, 1999; Schmitt, 2008; Schmitt, Realo, Voracek, & Allik, 2008).

2.3 Tools to Measure Personality

Over the years considerable research has been conducted in the field of personality. Theoretical frameworks and personality theories have been developed to establish what it is that makes people different and why do some people participate in activities that other people refuse to do (e.g. sky diving, solo rock climbing, caving etc).

From the early workings of Freud (Psychoanalytical Approach) and Bandura (1977 - Social Learning Theory) to Costa and McCrae's (1997 - NEO-PI-R) and Gosling *et al.*'s., (2003) research on the Five Factor Model, research focused on personality is vast, as is the number of the number of instruments used to measure personality. This study will look at a sample of instruments used to measure personality.

2.3.1. Myers- Briggs Type Inventory

Based upon Jung's (1923 cited in John, Robins and Pervin, 2008) typology of Functions (feeling, sensing etc.) and Attitudes (Extraversion- Introversion) the Myers-Briggs Type Indicator (MBTI) "was until recently one of the most widely used personality tests" (p.12) which was designed to measure how people make decisions and have certain preferences (John *et al.*, 2008). Originally developed during the Second World War, in an attempt to place women in jobs and positions which would suit them, the questionnaire developed by Myers (1962, cited in John *et al.*, 2008 -which became known as the Myers-Briggs Type Indicator) was published in 1962 (Feist and Feist, 2009).

The MBTI instrument is a self administered report that consists of items which assess eight of Jung's personality types namely:

- Extraversion – Introversion (EI),
- Sensing – Intuition (SN),
- Thinking – Feeling (TF),
- Judging and Perceiving (JP)

(Feist and Feist, 2009 & Beuke, Freeman and Wang, 2006)

According to Beuke *et al.*, (2006), the MBTI measures “dichotomous preferences rather than continuous traits” (p.1) resulting in sixteen personality possibilities from variations of the four scales. The MBTI has proved a valid and reliable tool to measure personality and has been translated and used worldwide (Nrodvik, 1994; Sim and Kim, 1993 & Osterlind, Miao, Sheng and Chia, 2004).

2.3.2 Eysenck's Personality Inventory

The Eysenck Personality Inventory was invented after the publication of Eysenck and Eysenck's first scale to measure personality (the Maudsley Personality Inventory – MPI) in 1962 which measure two dimensions of personality (Neuroticism and Extraversion) (Weiner and Craighead, 2010). When the third personality domain (Psychoticism) was added in 1964 the Eysenck Personality Questionnaire was created (Feist and Feist, 2009).

A revised measure (EPQ-R) of the Eysenck Personality Questionnaire was created in response to a skewed distribution and low scoring on the Psychoticism scale (Weiner and Craighead, 2010; Feist and Feist, 2009; John *et al.*, 2008; Pervin, 1993). According to Weiner and Craighead (2010), taking approximately thirty minutes to complete the EPQ-R is a one hundred item questionnaire that assess the three domains (Neuroticism – 24 items, Extraversion -23 items and Psychoticism -32 items) and provides a twenty one item lie scale with all of the questions requiring a 'yes' or 'no' response to statements (e.g. Do you often feel lonely? And Do you enjoy meeting new people?).

The reliability of the EPQ-R is still being validity today by researchers, with Dazzi (2011) producing good Cronbach Alpha consistencies of between 0.70 and 0.84 with re-test consistencies of 0.79 to 0.93) to confirm its reliability.

2.3.3 NEO-PI-R and NEO-FFI

Developed by Costa and McCrae (1992, cited in Aluja, Garcia, Rossier & Garcia, 2005) the Revised NEO Personality Inventory (NEO-PI-R) is a two hundred and forty item instrument that is used to measure the personality traits of the Big Five (Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism). The NEO-PI-R permits measurement of each of the Big Five dimensions with six or more facets that are specific to each factor (Costa and McCrae 1992, cited in Garcia *et al.*, 2005; John *et al.*, 2008).

The NEO-PI-R stemmed from the earlier workings of Costa and McCrae (1976) when they did a cluster analysis of Cattell's 16 PF. Feist and Feist (2009) reported that Costa and McCrae's (1976) original workings found that the personality traits Extraversion and Neuroticism yielded ubiquitous dimensions, while also understanding the importance of the trait Openness (hence NEO). According to John *et al.*, (2008), the original NEO system did not encompass traits in the Conscientiousness and Agreeableness domains. It was not until 1992, when the fully developed Conscientiousness and Agreeableness scales appeared in the Revised NEO-PI (Feist and Feist, 2009), after Costa and McCrae (1992, cited in Garcia *et al.*, 2005) presented results which demonstrated that their questionnaire with the five factor scales did indeed prove to converge with the measures from the Big Five (John *et al.*, 2008; Feist and Feist, 2009).

As a measurement tool the NEO-PI-R is rather long. When conducting research in a field setting or when time is restricted, shorter measurement tools are more favourable (Gosling *et al.*, 2003). According to Feist and Feist (2009), Costa and McCrae developed an abbreviated version of their NEO-PI-R using a sixty item NEO Five Factor Inventory (NEO-FFI). The NEO-FFI consists of a sixty item measurement tool with each of the five factors (Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism) containing twelve items which takes approximately ten

to fifteen minutes to complete. Costa and McCrae (1992) published a revised version of 240 items (NEO-PI-R). The reliability of the NEO-FFI has been compared to the NEO-PI-R with reliability indexes ranging between 0.68 and 0.86 (Costa and McCrae, 1992, cited in Aluja, *et al.*, 2005). This reliability has been validity by researchers with Rolland, Parker and Stumpf (1998) producing reliability indexes ranging between 0.62 and 0.84.

2.3.4 Ten Item Personality Inventory

Conducting surveys onsite with subjects who are participating in their chosen recreational activity can prove problematic when using long, cumbersome questionnaires. Traditional personality measurement tools take time to fill out. With this in mind Gosling *et al.*, (2003) devised the Ten Item Personality Inventory, a very brief measurement tool, to assess the Big Five personality traits. While single item personality measurement tools are usually inferior to the larger multiple item measurement tools, single item measurement tools have their benefits (Gosling *et al.*, 2003).

According to Romero, Villar, Gomez-Fragela and Lopez-Romero (2012), and Francis and Jackson (2004) traditional measurement tools for assessing personality are typically long and time consuming. This increases the likeliness of fatigue and boredom for the subjects resulting in a lower quality data set (*ibid*). These findings support the study by Robins, Hendin and Trzesniewski (2001) who concluded that single item measurement scales reduce fatigue, boredom and frustration that stem from repeatedly answering similar questions associated with multi item scales.

Support for the use of shorter measurement tools is on the increase. Burch (1997) found that short scales ($r=0.54$) are as reliable as long scales ($r=0.51$) when comparing a nine item and a fifty item scale used for measuring depression. Similarly, Birley, Gillespie, Heath, Sullivan, Boomsama and Martin (2006) found that stability for scores of Neuroticism using Eysencks 23 and 12 item Neuroticism scale was $r= 0.62$ and $r= 0.59$ respectively.

With the aim of this study focusing on the personality, motivation and level of involvement of land based recreationists in the Irish uplands, finding a reliable short item measurement tool to identify the personality traits of the subjects was vital.

Validated by the Journal of Research in Personality and used in peer rating studies (Ehrhart, Ehrhart, Roesch, Chung-Herrera, Nadler and Bradshaw, 2009; Hofmans, Kuppens & Allik, 2008 & Furnham, 2008) the Ten Item Personality Inventory has been shown to be a valid tool to measure personality when time is restricted (Gosling *et al.*, 2003 & Ehrhart *et al.*, 2009).

Using a sample population of subjects (n=1813), from the University of Texas, convergent correlations between the Big Five Inventory and the Ten Item Personality Inventory by Gosling *et al.*, (2003) found that there were no differences between each of the five personality traits. With significant differences measured at $p=0.01$, Gosling *et al.*, (2003) found that the convergent correlations between any of the personality traits on Big Five Inventory and the Ten Item Personality Inventory was strong (Extraversion $r=0.87$, Agreeableness $r=0.70$, Conscientiousness $r=0.75$, Emotional Stability $r=0.81$ and Openness to Experience $r=0.65$). When compared with Costa and McCrae's (1992) well established multi-item instrument (the Revised NEO Personality Inventory - NEO-PI-R) Gosling *et al.*, (2003) found that the correlations of each of the personality traits (Extraversion $r=0.65$, Agreeableness $r=0.59$, Conscientiousness $r=0.68$, Emotional Stability $r=0.66$ and Openness to Experience $r=0.56$) was strong between the two result sets (*ibid*).

To test the validity of the TIPI, Ehrhart *et al.*, (2009) tested the TIPI against the fifty item International Personality Item Pool (IPIP) Five Factor Model. Ehrhart *et al.*, (2009) and found that all of the traits (Extraversion $r=1.00$, Agreeableness $r=0.96$, Conscientiousness $r=0.99$, Emotional Stability $r=0.99$ and Openness to Experience $r=0.78$) provided "strong evidence for convergent of validity of the two measures" (Ehrhart *et al.*, 2009, p.902).

2.4 Personality of Athletes

Results from early personality studies of athletes (from various sporting disciplines) found that there are differences in the personality profiles of individuals who participate in different types of sports (Kirkcaldy, 1982a). More recently studies have focused on athletes from various sporting activities including swimmers (Khalil, 2011), female soccer players (Burtona, Gillhamb, & Glenn, 2011) and badminton players (Sah,

Ghildyal, & Patwal, 2011) to elite level athletes including Olympic gold medal winners (Gould & Maynard, 2009; Markus, Uchida, Omoregie, Townsend, & Kitayama, 2006). Research has shown that athletes display higher levels of Extraversion, Openness to Experience, Agreeableness and Conscientiousness and display lower levels of neuroticism than non athletes (Kahlil, 2011; Burtona *et al.*, 2011; Sah *et al.*, 2011; Gould and Maynard, 2009 and Markus *et al.*, 2006).

When the personality profiles of athletes was compared at different levels of engagement in their sport, Kirkcaldy (1982a) found that elite male athletes scored higher for psychoticism (tough mindedness and dominance) and lower for neuroticism (emotional stability) than the lower or middle level competitors. In comparison with the same two groups (lower and middle level) the elite female athletes scored higher for extraversion and lower for psychoticism and neuroticism (Kirkcaldy, 1982a).

Eysenck, Nias and Cox (1982) had concluded that elite athletes tended to score higher on the Extraversion and Sociability scales than the general population while also scoring higher for dominance, sensation seeking, risk taking, and psychoticism, indicating that athletes are also tougher minded than the general population. The same study showed that elite athletes tended to score lower for neuroticism and anxiety, suggesting that athletes have a greater emotional stability than the general population.

Eysenck, *et al.*, (1982) found that the personality traits between athletes and non-athletes are very different. When compared to non athletes, athletes are usually emotionally stable, more extraverted and express a stronger need for stimulation and productivity (*ibid*). Other research that focused on the personality profiles of elite athletes demonstrated a distinct psychological profile that is different from the profiles of recreational, amateur and non-athletes (Tušak & Tušak 2001 cited in Burnik *et al.*, 2008). Tušak and Tušak (2001, cited in Burnik *et al.*, 2008) found that recreational athletes scored lower levels of extraversion than elite athletes, but higher levels than the non athletes. Recreational athletes also scored higher for levels of neuroticism than the elite athletes and lower levels than those of the non athletes.

According to Tušak and Tušak (2001, cited in Burnik *et al.*, 2008), when compared to non athletes, athletes are usually:

- more aggressive,

- have better emotional self-control,
- are more psychologically and emotionally stable,
- less anxious,
- show a higher degree of dominance and responsibility,
- demonstrate higher degrees of frustration and pain tolerance and,
- display higher degrees of self-confidence.

The second contributory factor that influences the personality of an athlete is the field of sport in which the athlete is involved. Burnik *et al.*, (2005) suggested that, when compared to athletes who are involved in team sports, the athletes who are involved in individual sports display higher levels of:

- individualistic tendencies,
- dominance,
- endurance,
- high level of self-control,
- self responsibility and,
- self-motivation.

In summary, research has shown that the personality profile of athletes is different to the personality profiles of non athletes. Findings from research has also shown that there are variances in the personality profiles of athletes depending on the athletes level of engagement the athlete in their activity (elite, recreational or beginner) and the type of activity in which the athlete is engaged (team or individual). To conclude, the level of engagement and type of sport that one chooses to participate in is predetermined by the individual's personality profile. An athlete who is introverted and scored high for neuroticism is more likely to be involved in an individual sport at a recreational or beginner level. While an athlete who is involved in a team sport or competing at a high level, will be extraverted and score low for neuroticism.

2.5 Personality of Upland Recreationists

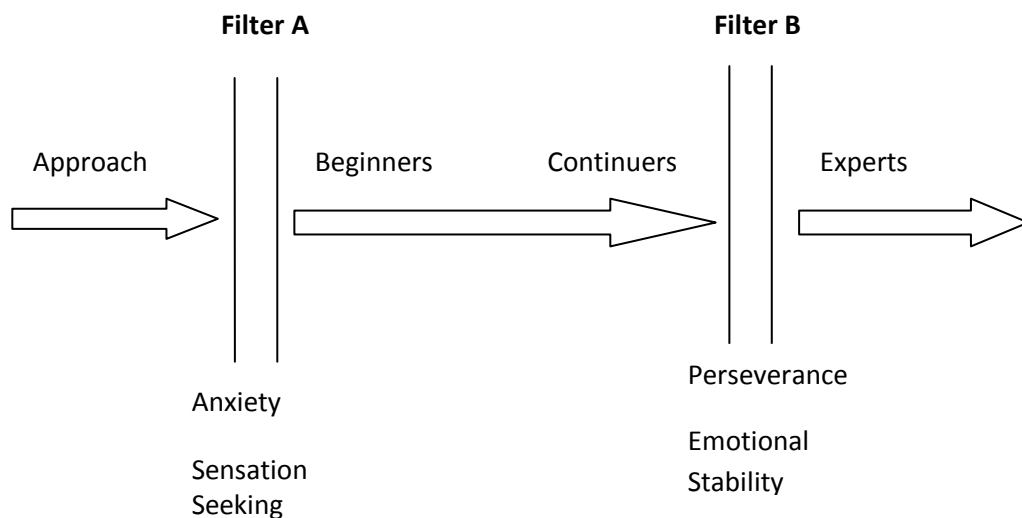
More recently researchers in the field of outdoor recreation have tended to focus on the participants of specific outdoor activities. For instance, researchers of outdoor recreation have studied specific types of climbers (Breivik, 1996; Burnik, Jug, Kajtna, & Tušak,

2005a; Egan & Stelmack, 2003), long distance hill walkers (Breejen, 2007; Kaye & Moxham, 1996), scuba divers (Coetzee, 2010; Guskowska, 2010; Todd, Graefe, & Mann, 2000) and mountain bikers (Skar, Odden, & Vistad, 2008). Sections 2.4.1 to 2.4.3, discusses current literature on the personality traits of upland land-based recreationists.

2.5.1 Personality Filter System

Before participants of land based upland recreation activities, such as trekking and hill walking, can reach the elite levels in their field (mountaineering) their personality profiles had to have made their way through an innate ‘filter system’ (Breivik, 1996; Breivik, Johnsen, & Augestad, 1994). According to Breivik *et al.*, (1994) and later affirmed by Breivik (1996), an individual’s personality profile must go through a filter system (that occurs at the physiological, physical and psychological levels), before they can reach the top levels in their field (Figure 2.3). It was suggested that this occurs to make sure the participant is made of the ‘right stuff’ to be able to succeed in both physically and mentally in tough conditions (Breivik, *et al.*, 1994).

Figure 2.3 Breivik, Johnsen & Augestad’s (1994) Model of the Filtering Process in High Risk Sports



(Adapted from Breivik 1996, p.11)

When elite Norwegian climbers were compared with Everest climbers the Breivik (1996) results indicated that in relation to drive factors Everest climbers are more extreme, they scored lower on worry and anxiety and other avoidance factors and have

more maturity and stability than the elite Norwegian climbers. According to Breivik (1996) this suggested that a notion of filtering takes place in relation to physical factors and psychological make-up.

According to Breivik (1996), to become a top level athlete in the field of climbing and mountaineering the individual needs “a more extreme psychological profile” (p.41) than individuals who are involved in the sport at the lower levels. If an individual lacks any of the traits needed to reach the ‘top’, Breivik (1996) suggested that they will continue to participate in their chosen activity, but at a level that is comfortable for them (e.g. an indoor rock climber will not become a mountaineer if they do not possess the right personality traits to become a mountaineer).

2.5.2 Mountaineers

As far back in history as the record books go, humans have climbed mountains. The Greeks and Romans climbed to establish trade routes (Feher, *et al.*, 1998) while the Incas built the Macchu Pinchu estate at two thousand four hundred and thirty metres above level (Burger & Salazar, 2004). Mountaineering as a sport, however, has only been in existence for the past three hundred years (Feher, *et al.*, 1998).

Investigations focused on improving the sports performance of athletes have shifted from research laboratories and into the field, resulting in an abundance of research literature focused on the personality characteristics of athletes across all disciplines. Previous mountaineering research has focused on the personality profiles of the elite mountaineers (Breivik, 1996; Burnik, *et al.*, 2005; Egan & Stelmack, 2003). Described as a high risk activity, researchers have predominantly made use of Zuckermann’s (1971) Sensation Seeking Scale (Breivik, 1996; Freixanet, 1991; Llewellyn & Sanchez, 2008; Sleasman, 2004; Trimpop, Kerr, & Kirkcaldy, 1998). Sensation seeking is defined by Zuckerman (1994, p.27) as:

“a trait defined by the seeking of varied, novel, complex, and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experience”.

Having evolved from a general scale (Zuckerman, 1971) to a “Total Score” (Zuckerman, 1994, p.54), the Sensation Seeking Scale (SSS Total Scales) is the sum of four subscales. Disinhibition (DIS), Experience Seeking (ES), Thrill and Adventure

Seeking (TAS) and Boredom Susceptibility (BS) subscales are used to measure the level of sensation seeking inhibited by an individual (Zuckerman, 1994).

Breivik (1996) found that Everest climbers scored very high for TAS and ES indicating that Everest climbers are eager to seek new and unusual experiences in all aspects of their everyday lives. While there is no doubt that Everest climbers are risk takers, Breivik's (1996) results showed that they are not only willing to take higher risks in relation to climbing but they also tend to take greater risks in their everyday lives.

According to Friexant (1991), and Breivik (1996), climbers scored unusually high for boredom susceptibility suggesting that maybe restfulness and impulsiveness is a part of their wish to not get stuck and move on so as to take advantage of changing weather conditions. In order to reach their goals Breivik (1996) found that sensation seekers have a lower appraisal of risk (in all types of risks; social, economic, physical, intellectual and military) indicating that high sensation seekers (such as Everest climbers) experience the world as a less dangerous or threatening place than the average person. According to Zuckerman (1994), the fact that mountaineers score higher for SSS Total, TAS and ES suggested that thrills and adventure are not only the goals of participation in risky activities, but rather the climber is looking for some general kinds of experiences that are experienced through the senses and through the mind.

Derived from the optimal arousal level theory mountaineers have a need to pursue relatively intense and exciting activities to fulfil their need for varied, novel and complex stimuli (Barnett, 2006). Developed from the original workings of Marvin Zuckerman (1974, cited in Zuckerman, 1994) the study of sensation seeking individuals has enabled researchers to gain a greater understanding of why some people participate in activities that produce elements of risk, thrill and adventure.

Originally developed to help researchers identify the sensation seeking personality trait, the sensation seeking scale soon became more widely used in the pursuit to explain why some individuals choose to participate in risk taking behaviours as part of their leisurely activities (Murray, 2003). Risks (both real and perceived) are an obvious component of many outdoor adventure activities (Ewert, 1989). According to Barnett (2006), it is those individuals who are susceptible to be bored who like taking risks with their lives and like to seek adventure who are most likely to engage in outdoor leisure activities (including rock climbing and mountaineering) that have an element of risk involved.

The Sensation Seeking Scale was used in the study of mountaineers and it was found that mountaineers scored higher for TAS, SSS Total Scales and ES with mountaineers scoring slightly higher for DIS than non risk sports participants. This suggests that the mountaineers participate to experience other experiences and not solely for the risk factor included in the activity (Freixanet, 1991).

Using the Catell 16 PF, Breivik (1996) showed that those who participate in high risk sports, such as mountain climbing and mountaineering, demonstrate much higher traits of ego strength, self sufficiency and independence and very low anxiety, guilt, tension and control when compared with general sports athletes (Breivik, 1996). Breivik (1996) concluded his research by suggesting that the personality profile of mountaineers in general requires them to seek out greater adventures and experiences to fulfil their stronger needs for thrill and excitement.

In 1996, researcher Manfredo, and later reaffirmed by Slovakian researcher Burnik *et al.*, (2005), found that the personality traits of elite climbers and mountaineers differed from that of the general population. Manfredo's (1996) and Burnik *et al's.*, (2005) research found that elite climbers and mountaineers displayed greater characteristics of dominance and self confidence while exhibiting impulsive personalities with expressed tendencies towards needing to experience new, exciting and unusual exploration. Manfredo (1996) suggested that the reason elite climber and mountaineers exhibit a greater need for exploration is due to the intense feelings of satisfaction and happiness they experience when they reach the summit of a difficult rock face or mountain.

Like cross country skiing, marathon running and cycling, mountaineering and mountain climbing is one of the most physically and mentally tiring activities that humans participate in (Burnik, *et al.*, 2005). Due to the long lasting physical strains placed on the body when carrying gear, scaling steep rock faces and mountains that can last for days, the mountaineer needs to ensure that they are in good shape both physically and mentally (Burnik, *et al.*, 2005; Lester, 2004). While physiologically similar the difference between mountain climbing and the other activities is that usually (with the exception of climbing, bouldering and ice climbing competitions) mountain climbers do not compete directly with one another (Burnik, *et al.*, 2005).

2.4.3 Rock Climbers

Evolving from the ancient tradition of climbing mountains, rock climbing has developed into a worldwide sporting activity which, in 1989, included the establishment of a World Cup circuit (IFSC, 2011). The increasing popularity of rock climbing and mountaineering as sport, has contributed to the increasing developments of artificial indoor walls (e.g. Rathgormac, UCC and Play at Heights in Dingle), where individuals can develop their rock climbing techniques and rope skills and practice during the dark wet winter months in the hope of climbing steeper mountains and cliff faces (Haas & Myers, 1995). The advances in technology have led to the advancement of material development which has produced light weight climbing harnesses, shoes, belay devices and crampons (Smith, 1998).

Rock climbing is a sport which requires the athlete to inhibit a great belief in one's self, and display greater amounts of confidence and concentration (Freixanet, 1991). Like professional athletes, elite rock climbers display the same dedication to skill advancement and training (Haas & Myers, 1995). Unlike general sporting athletes, rock climbers and mountaineers are directly affected by inclement weather conditions which increases the risk factors placed on the climbers (Llewellyn & Sanchez, 2008). Research has shown that the successful negotiation of a climb increases self esteem (Iso - Ahola, LaVerde, & Graefe, 1988), self appraisal and competence (Lefebvre, 1980). Freischlag and Freischlag's (1993) study found that the completion of a successful climb not only increases levels of satisfaction and self esteem but it also has a positive effect on climbing ability. Unlike the team athletes, rock climbers did appear to be less motivated by the need to achieve success (Feher, *et al.*, 1998).

2.6 Personality Traits of Upland Recreationists

When compared to recreational athletes (such as trekkers and hill walkers), Everest climbers scored lower on the neuroticism scale than the recreational athletes, demonstrating dispositions of low reactivity to stressful situations characterised by a lack of worry (Egan & Stelmack, 2003). These results collaborated the findings of Burnik and Tusak (1999) who found that, when compared to a control group of university students, mountaineers also scored significantly lower scores of neuroticism.

According to Egan and Stelmack (2003), Baric *et al.*, (2004), Burnik and Tusak (1999) and Burnik *et al.*, (2005), the low scores for the personality trait neuroticism are crucial for mountaineers. Baric *et al.*, (2004) suggested that those involved in high risk sports, such as mountain climbing and mountaineering, need to be able to remain calm and satisfied that they have to ability to deal satisfactorily with any sudden stressful situations. If a mountaineer inhibits high levels of neuroticism it presents a problem when faced with difficult and sudden decision making processes, such as inclement weather patterns, impassable ridges and avalanches (Burnik, *et al.*, 2005).

Without the presence of the characteristics associated with low levels of neuroticism (calm, patient and relaxed) Egan and Stelmack (2003) suggested that reaching the top levels of climbing or mountaineering would not be possible. According to Baric *et al.*, (2004) it is hard to imagine that a mountaineer would, when faced with sudden weather changes, lose control of their emotions. When tested against non risk athletes and non athletes, Baric *et al.*, (2004) reported that individuals who are involved in high risk sporting activities (such as mountaineering) record significantly greater levels ($p < 0.01$) of emotional stability than the other two test groups with the non athlete group scoring the lowest.

2.6.1 Personality Trait 'Openness to Experience' and Outdoor Recreation Participation

More and Averill (2003) suggested that participation in specific recreation activities is an individual choice that is influenced by individual differences in one's personality. When deciding upon which activity to participate in, an important contributory factor to determining recreation preferences is the degree to which an individual is open to new

experiences (*ibid*). Moss, Shackelford and Stokes (1969) found that outdoor recreationists who go camping in traditional campsites as part of their leisure experience are less open to new experiences than those who will camp in the wilderness. The study by Moss *et al.*, (1969) is supported by Alujaa, O' Scar, & Garcia, 2003 and More & Averill, (2003) who found that those who score low for openness to experience prefer to stick to familiar and organised recreational activities, while those who score high for openness to experience are more adventurous in their activity choice, location and the variety of the activities that they participate in.

Research by Baric *et al.*, (2004) found that those in the high risk athlete's group appeared to be the more creative, curious, informed and original, by scoring slightly higher values for openness to experience than the non risk athlete and non athlete groupings ($p = 0.03$). Results from the workings of Alujaa *et al.*, (2003) who studied leisure participation, found that those who scored high for openness to experience searched out activities that produced high levels of excitement and adventure, providing the individual with a thrill experience. Similarly, mountaineers have been found to score high for openness to experience with the attraction of a new experience being one of the contributing factors to mountain climbing (Sleasman, 2004). These findings support the research by Woodman *et al.*, (2010) who found that mountaineers and rock climbers scored higher for openness to experience than non climbers.

2.6.2 Personality Trait 'Conscientiousness' and Outdoor Recreation Participation

Conscientiousness is an important attribute to exhibit for any climber or mountaineer. Being a good team or group member requires that the individual can maintain good, healthy relationships with other members by being trustworthy and responsible. These attributes are especially important in the fields of climbing and mountaineering when lives depend on being able to trust that your team or group member will assist you in the event of a fall or accident (Baric, *et al.*, 2004). A conscientious individual displays traits of being hard working, determined and persistent (Costa & McCrae, 2008) which according to Baric *et al.*, (2004) is why exhibiting the trait Conscientiousness is important for all athletes to allow for good training and performances. Non athletes scored lowest for Conscientiousness with Baric *et al.*, (2004) suggesting that non athletes are more prone to displaying traits of disorderly and laziness. More and Averill

(2003) reported that individuals who score high for Conscientiousness are more likely to achieve success in their activity than those who score low for Conscientiousness.

A post hoc analysis of variance (on a study to examine the differences in the personality traits of high risk sports athletes, non risk sports athletes and non athletes) by Baric *et al.*, (2004), found that high risk sports athletes scored significantly higher scores of conscientiousness than both the non risk athlete group and the non athlete group ($p = 0.00$). The non risk athlete group scored significantly lower than the high risk athlete group and greater than the non athlete group. While the non athlete group scored significantly lower than both the high risk and non risk athlete groups for Conscientiousness (Baric, *et al.*, 2004).

2.6.3 Personality Trait 'Extraversion' and Outdoor Recreation Participation

Extraversion is a personality trait that has been found to be strongly linked with sports participation due to the competitive nature within games and sports (Kirkcaldy, 1982b; Lin, Chen, Wang, & Cheng, 2007; Trimpop *et al.*, 1998). A study by Burnik *et al.*, (2005), who compared the personality profiles of mountaineers, found that mountain climbers scored significantly higher results for Extraversion than the recreational climbers.

Extraversion has been linked with the sensation seeking construct (Woodman, *et al.*, 2010). According to Woodman *et al.*, (2010), those who score high for extraversion seek out activities that include elements of excitement and adventure while those who score high for introversion preferring to participate in activities that are familiar and with which the individual feels confident in. The very nature of mountaineering (the risk potential, confidence in self, others and climbing ability) requires that mountaineers exhibit personality traits that score high for extraversion (Sleasman, 2004).

Interestingly, Breivik's 1996 study on Everest climbers found that Norwegian and Czechoslovakian mountaineers produced results which suggested that they had personality traits which were more congruive to the personality trait Extraversion. The results from the same study on English and Italian mountaineers, produced results which suggested that they had more introverted personality traits. This supports a previous study by Sleasman (2004) who proposed that individuals who participate in mountaineering are unique (when compared to other high risk sports participants).

Sleasman (2004) proposed that mountaineers may display personality traits that are a “product of a broader range of personality variables” (p. 34)

2.6.4 Personality Trait ‘Agreeableness’ and Outdoor Recreation Participation

An early study into the personality profiles of outdoor recreationists found that the personality profiles of the outdoor recreationists differed from that of the norm (Driver & Knopf, 1977). According to Driver and Knopf (1977), the personality traits of the ‘National Trail Walkers’ scored lower results for the personality trait Agreeableness than the norm group (local walkers), with National Trail walkers more introverted and preferring to enjoy the solitude that the trail provides.

An important attribute to exhibit for a climber or mountaineer is to be able to maintain control of their socially unacceptable impulses (Baric, *et al.*, 2004). Research by Burnik and Tusak (1999) found that mountaineers scored significantly higher results for the personality trait Agreeableness. This research supported the findings of Levenson’s (1990) study, who reported that rock climbers possessed higher scores for the personality trait Agreeableness than the norm. While Levenson’s (1990) research concluded that rock climbers possessed greater levels of the personality trait Agreeableness, Levenson (1990) did conclude that there was no difference in the levels of the trait Agreeableness irrespective of the climbers skill levels.

As mentioned earlier, climbers and mountaineers need to be able to get on well with peers, as there is a greater need to be able to trust and depend on your climbing partners in the event that you need them to assist you. Vice versa, your peers need to know that they can depend on and trust you (Baric, *et al.*, 2004).

2.6.5 Personality Trait ‘Neuroticism’ and Outdoor Recreation Participation

Research conducted to establish the personality profiles of rock climbers found that rock climbers scored lower levels of Neuroticism than the general population (Burnik, *et al.*, 2005; Feher, *et al.*, 1998). The results also showed that the elite rock climbers scored lower levels of Neuroticism than the recreational climbers (Feher, *et al.*, 1998). These results were collaborated in subsequent research which focused on the personality profiles of telemark skiers. Findings showed that extreme telemark skiers (ski off piste – through trees and down steep inclines that include numerous dangerous jumps)

possessed lower level of Neuroticism than elite (compete in elite competitions on designated slopes) telemark skiers (Trafton, Meyers, & Skelly, 1997).

Egan and Stelmack (2003) and Burnik *et al.*, (2005) studied the personality profiles of mountain climbers on Mount Everest and in Slovenia respectively. When compared with non climbers, mountain climbers (both those who reached the summit of Mount Everest and those who did not) scored lower levels of the trait Neuroticism than the non climbers (Egan & Stelmack, 2003). When compared to recreational climbers (climbers who climbed seldom), mountain climbers possessed lower levels of neuroticism than the recreational climbers (Burnik, *et al.*, 2005). According to Egan and Stelmack (2003) and Burnik *et al.*, (2005), when faced with a dangerous situation on the mountain a mountain climber gets no second chance. As such, a mountain climber must possess a personality trait that has low level of Neuroticism to enable them to think clearly when faced with making a difficult decision. Egan and Stelmack (2003) also reported that the lower scores on the Neuroticism scale of mountain climbers are frequently reported for athletes, especially for the athletes who perform at elite levels.

2.7 Personality Conclusion

A review of the current literature has found that the upland recreationists who participate in land based recreational activities that require low levels of physical fitness, training or dedication to the activity scored low for Extraversion, Conscientiousness, Agreeableness and Neuroticism and high scores of Openness to Experience. This suggests that strollers and rambles will exhibit traits of introversion, carelessness, and prefer to participate in activities that have little or no elements of risk involved.

While numerous studies have been conducted on the personality profiles of mountaineers and climbers, Egan and Stelmack (2003) found that mountain climbers and rock climbers displayed the same characteristics of elite athletes, with all three groups exhibiting high levels of extraversion and low levels of neuroticism.

Breivik *et al.*, (2004) suggested that to participate in mountain climbing and mountaineering, the upland recreationist's personality has to have successfully negotiated their way through the personality 'filter system'. According to Breivik

(1996), to become a top level athlete in the field of climbing and mountaineering the individual needs “a more extreme psychological profile” (p.41) than individuals who are involved in sports at the lower levels. This theory is collaborated by the research of Baric *et al.*, (2004) who found that the personality characteristics of those involved in outdoor activities that involve a high level of risk exhibited stronger traits of Extraversion, Conscientiousness, Social and Neuroticism than those involved in the lower risk or no risk groupings. These findings suggest that mountain climbers and mountaineers will be talkative, adventurous and calm.

The value of the filter system when studying the personality of climbers and mountaineers showed that mountain climbing and mountaineering are activities that not everyone can participate in. The filter system prevents individuals who are of a nervous disposition or not ‘made of the right stuff’ from participating in activities where they are not physiologically or psychologically able to do so. The literature shows that personality plays a significant role in the activity choice of the upland recreationist.

The value of understanding the personality characteristics of actual and potential participants (who desire different types of experiences in the uplands), and understanding the relationships between these characteristics and recreation demands will help planners and managers to make more efficient and effective decisions in understanding the potential of a particular resource or facility for specific types of users (Driver & Knopf, 1977).

2.8 Motivation

According to Smith, Nolen–Hoeksema and Loftus (2003, p. 353), motivation is “a condition that energises behaviour and gives it direction”. It is experienced subjectively as a conscious desire, but it is the choice of the individual whether or not they act upon those desires (Reiss, 2004). Motivation occurs as the result of cognitive physiological events that occur in the brain and the body that affect the choices an individual makes about their desires based upon social and environmental interactions (Gleitman, *et al.*, 2004).

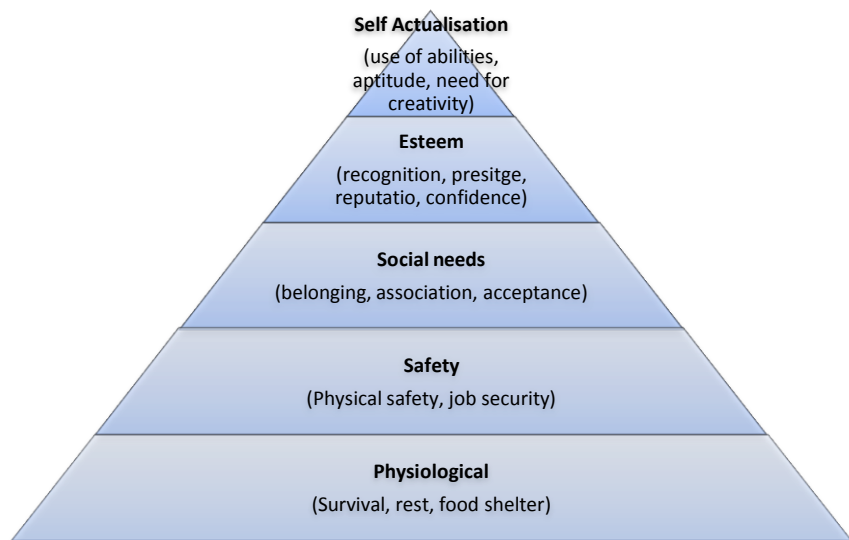
As individuals, our behaviours are typically directed by a particular incentive that produces pleasure or alleviates an unpleasant state (Nowacki, 2009; Zabkar, Brencic, & Dmitrovic, 2010). Incentive motivation is typically associated with the wanting of something, which is derived from the pleasure half of the continuum that corresponds with the liking (Gleitman, *et al.*, 2004; Smith, *et al.*, 2003). Actions which can stimulate ‘the liking’ include going for a gentle stroll in the park with the dog, thus stimulating pleasure. Future behaviours become directed by previous pleasures that have been remembered and learned (Gleitman, *et al.*, 2004). A distinct difference in motivation is the difference between wanting and liking. To want something is an anticipation of pleasure or reward, while to like something is a pleasure in the moment. Liking something that occurred or happened in the past usually contributes to wanting to do it again in the future (Gleitman, *et al.*, 2004; Smith, *et al.*, 2003). This section will look at the development of motivation theory and the different types of motivation (intrinsic and extrinsic) before delving into the motivations of outdoor recreationists.

2.8.1 Maslow’s Hierarchy of Needs

Motivation has been studied from many different perspectives over the years with researchers adopting a number of different approaches including a biological approach, a physiological response to satisfy drive, and a humanistic approach, the desire for the fulfilment of the concept of human choice (Maslow, 1970). The humanistic approach requires humans to be responsible for their own actions even though those decisions are influenced by past experiences (Goldstein, 1994). The most notable workings from a humanistic perspective is that of Maslow’s (1970) Theory of Need Fulfilment. Based on a general theory of motivation, Maslow’s (1970) theory of needs identified five basic human needs (physiological, safety, love, esteem and self actualisation) arranged in a

hierarchy (see figure 2.4). According to Maslow's (1970) theory, needs that are essential for human survival (physiological needs) are located at the bottom of the pyramid while psychological needs are located higher up. Key to Maslow's (1970) theory is that an individual cannot progress up the pyramid until the preceding need is at least partially fulfilled.

Figure 2.4 Maslow's (1970) Hierarchy of Needs



Maslow (1970) proposed that before an individual is motivated to search for belonging, esteem and intellectual stimulation, physiological and safety needs must be satisfied. In the field of leisure studies, scholars (Iwasaki & Mannell, 2000; Mannell & Kleiber, 1997) have utilised Maslow's (1970) theory of needs to investigate the importance of leisure as it is a provider of self actualisation (Plummer, 2009). Critics of Maslow's (1970) hierarchy of needs suggest that empirical evidence does not support the hierarchy claims. It is claimed that self actualisation is difficult to measure and it does not account for social influences (Iso-Ahola, 1980; 1999; Rodriguez, Latkova, & Sun, 2008).

2.8.2 Expectancy Theory

Theorists of the expectancy theory propose that individuals engage in certain behaviours because they expect that the outcome of that behaviour will result in a reward (Plummer, 2009). While the expected outcome is usually positive it is not always the case. On occasion the behaviour can also have negative rewards. According to Ewert (1989), these expectations can be divided into three expectations, namely, sociological

(compassion, socialising, trust, etc), psychological (confidence, sensation seeking, fun, self concept enhancement, etc) and physical (fitness, health, catharsis, outdoor skills, etc).

The expectancy theory intuitively makes sense; an individual makes the choice to participate in an activity (e.g. going for a stroll or hill walking) as they expect to gain better health, lose weight or improve their physical fitness (Plummer, 2009). Within the rubric of expectancy the individual should expect a high degree of safety with a minimum degree of exposure to unnecessary risks. They should also expect an appropriate selection of activity (choice and level) with program objectives. Thus, a beginner does not expect to climb Mount Everest on their first outing. Similarly, they do not expect to be injured or killed, or made to feel foolish and incompetent (Ewert, 1989).

Ewert (1989) suggested that when an individual participates in outdoor recreation activities (e.g. walking and rock climbing) they expect to experience feelings of antecedents (positive or appropriate expectation during and/or after participation). For antecedents to occur, the individual must experience what they believe to be the perceived benefits of their participation. This could include the learning of new skills or meeting new people (Ewert, 1989; Priest & Gass, 1998). Table 2.3 illustrates the expectancy components suggested by Ewert (1989) that are found within outdoor recreation programming.

Table 2.3 Potential Expectancy Components in Outdoor Adventure Programming

| Avoidances | Antecedents | Benefits |
|---------------------|------------------------|---------------------|
| Getting hurt | Money's worth | Enjoyment |
| Demeaning treatment | Safety | Self-concept |
| Unnecessary risks | Appropriate activities | Physical fitness |
| Rigorous work | Learning opportunities | Socialisation |
| Failure | Souvenirs | Self-actualising |
| Confrontation | Reasonable costs | Achievement |
| Illness | Quality equipment | Personal reflection |

2.8.3 Intrinsic Motivation

The study of intrinsic motivation is extensively used in the field of motivation (Deci & Ryan, 2000; Reiss, 2004; Sleasman, 2004; Vallerand, 2001). According to Deci (1971),

intrinsic motivation generally refers to the impetus a person has to perform a given activity. Types of intrinsic motivation include participating in a given activity for the sheer fun, pleasure and enjoyment derived from participation (Gleitman, *et al.*, 2004). Intrinsic motivation is more likely to occur when the activity is interesting and challenging, when the activity provides individuals with clear feedback and when it provides individuals with the freedom that is needed to participate in the activity (Deci & Ryan, 2000; Ferrer-Caja & Weiss, 2000; Reiss, 2004; Sleasman, 2004; Smith, *et al.*, 2003; Vallerand, 2001).

The psychological process of intrinsic motivation is conceptualised as containing task involvement, enjoyment, curiosity, interest, competence and self-determination (Barnett, 2006; Deci, 1971; Deci & Ryan, 1985 2000; Ferrer-Caja & Weiss, 2000). Intrinsically motivated individuals experience a series of psychological states such as fun and enjoyment (Deci & Ryan, 2000). Ferrer-Caja and Weiss (2000) suggested that when an individual is engaged in challenging activity, those who are intrinsically motivated to participate in that activity will maximise their effort and persistence levels greater than those who are extrinsically motivated.

2.8.4 Extrinsic Motivation

Derived from the research of Deci (1971), extrinsic motivation refers to factors that involve reward or punishment (or both) from outside forces and stems from obvious external factors such as rewards, pay, approval and obligations (Coon, 2001; Vallerand, 2001). By its very nature, sport and recreation can provide many forms of extrinsic rewards (Bull, 2004; Woods, 1998). Tangible and intangible rewards act as motivators which make an individual more likely to perform the behaviours that are being rewarded (Coon, 2001). Known as social reinforcement, tangible rewards include finance, trophies and medals or intangible rewards include prestige or praise (Smith, *et al.*, 2003).

According to Deci and Ryan (1985) and Weinberg and Gould (2003) extrinsic motivation includes integrated regulation (activity personally valued because of the importance of the outcome rather than for the interest), identified regulation (the behaviour is highly valued by the individual and performed willingly even if the activity itself is not pleasant), introjected regulation (motivated by internal pressures), external regulation (the behaviour is completely controlled by external forces such as constraints

and rewards) and amotivation (the individual is neither extrinsically nor intrinsically motivated and experiences feelings of lack of control and incompetence).

When extrinsic rewards displace intrinsic factors as the primary motivation for engaging in an activity, individuals experience a loss of control (Cashmore, 2010). They feel controlled by external forces, such as peers, family and rewards, to participate in the activity. The once internal reason for participating in the activity, such as fun and enjoyment, becomes displaced resulting in participation becoming more of an effort, strain or hindrance (*ibid*).

2.8.5 Push/Pull

The travel concept was categorised into two acting forces; the push variable and the pull variable (Dann, 1981; Huang & Hsu, 2009; Kruger & Saayman, 2010; Sung, 2004). According to Dann (1981), Uysal and Hagan (1993) and Sung (2004) push motivations are related to a person's desires and are more related to internal or emotional aspects of psychology. A number of variables can influence push motivations including the desire to escape, for relaxation, to seek adventure, have social interactions, experience excitement, rest, health and fitness and family together time (Dann, 1981; Huang & Hsu, 2009; Kruger & Saayman, 2010; Sung, 2004; Uysal & Hagan, 1993).

Adopting a socio psychological perspective, Iso-Ahola (1980) concluded that outdoor recreation can cater for both push and pull variables. Individuals perceive participation in leisure as a potential producer of satisfaction motivation (Sirgy, 2010). Participation in outdoor recreation can provide an individual with intrinsic push motivations including rewards, such as competence and mastery, whilst at the same time providing intrinsic pull motivations including escape from the everyday work/home environment (Iso-Ahola, 1980; Plummer, 2009).

2.8.5.1 Push Motivations

Studies on tourist motivation by Dann (1981) and Sung (2004) suggested that there are two twin push factors that underpin the decision making process. These include the existence of anomie (the need to break out of dull meaningless surroundings) and ego enhancement (the desire to be recognised or create envy). Underlying both factors is a strong fantasy component (Dann, 1981). Research by Yoon and Uysal (2005) suggested that push motivations are related to an individual's personal desires and are more related

to internal or emotional aspects of psychology. Based on Maslow's (1970) Hierarchy of Needs, Kim and Lee (2002) proposed that individuals expect that they will fulfil their expected need to reach their "optimal level of stimulation" (p.258) during their recreation experience. By adopting a demand side approach recreationists will seek to participate in activities that they feel will fulfil their expected needs (Kim & Lee, 2002). A number of variables have been found to influence push motivations including:

- The desire for escape,
- Relaxation,
- Adventure
- Social interaction,
- Excitement,
- Rest,
- Health and fitness,
- Family together time, and
- Learning and discovery

(Dann, 1981; Huang & Hsu, 2009; Kim & Lee, 2002; Kruger & Saayman, 2010; Loker-Murphy, McGehee, & Uysal, 1996; Meng & Uysal, 2008; Sung, 2004; Yoon & Uysal, 2005).

2.8.5.2 Pull Motivations

In contrast to push factors Kim, Lee and Klenosky, (2003) proposed that pull motivations have been "conceptualised as relating to the features, attractions, or attributes of the destination itself, such as beaches and water/marine-based resources, mountains and beautiful scenery and historic or cultural resources" (p.171). According to Dann (1981), pull factors draw people towards a destination or location and emerge as a result of the attractiveness of a destination as it is perceived by the individual. It is this perception of such variables (ease of travel, budget, location, scenery, facilities etc.) that pull people towards that location (Dann, 1981; McDonald & Yuan, 1990; Yoon & Uysal, 2005). A number of variables have been found to influence pull factors. These include:

- Scenery
- Natural/historical attractions,
- Recreational activities

- Facilities,
- Cleanliness and safety,
- Festivals and events, and
- Costs.

(Correia, do Valle, & Moco, 2007; Jang & Wu, 2006; Kim, Lee, & Klenosky, 2003; Sangpikul, 2008; Yoon & Uysal, 2005)

While push and pull factors have, in general, been characterised as containing the need to make two separate decisions at two different points in time, with the push factors influencing the decision of whether to go and the pull factors influencing the decision of where to go (Kim, *et al.*, 2003). According to Dann (1981), motivational push factors precede the pull factors. For example Dann (1981) suggested that once the decision has been made as to where to go, the decision of what to do or see can then be made. It has been argued that the perspective of the push and pull variables are independent factors (Klenosky, 2002). According to Klenosky (2002), push and pull factors should be viewed as being related to one another. Kim *et al.*, (2003) reported that for individual's to choose which location/destination they wish to visit, both internal push factors and external pull factors drive them towards a destination.

2.8.5.3 Push/Pull Factors of Visitors to National Parks

A number of studies have been conducted that have focused on the motivations of visitors to National Parks (Kim & Lee, 2002; Kim, *et al.*, 2003; Kruger & Saayman, 2010; Loker-Murphy, *et al.*, 1996; Mace, Bell, & Loomis, 2004; Toa, Eagles, & Smith, 2004; Uysal, McDonald, & Martin, 1994). Uysal *et al.*, (1994) studied the motivations of Australian Visitors to National Parks in the United States. The results from their study found (which was based upon thirty individual motivations) that five motivational domains emerged. These included escape, prestige, relaxation/hobbies, novelty and enhancement of kinship relationship. Novelty proved to be the greatest motivational factor of Uysal *et al's.*, (1994) study with prestige, enhancement of kinship relationships, relaxation/hobbies and escape scoring second to fifth respectively.

The 1996 study by Loker-Murphy *et al.*, which examined the motivations of domestic and foreign backpackers in Australian National Parks, found that three main motivational factors emerged. These included 'excitement', 'adventure' and 'meeting local people'. Further analysis identified four clusters of backpackers. The four cluster

of backpackers included those who were self developers, those who were achievers, those who were social/excitement seekers and those who sought relaxation and escapism (Loker-Murphy, *et al.*, 1996).

More recently, findings from Kim and Lee (2002) and Kim *et al's.*, (2003) study, on visitors to six National Parks in South Korea, suggested that four push and four pull factors emerged. The push factors included 'family togetherness and study', 'appreciating natural resources and health', 'adventure and building friendship' and 'escaping from everyday routine'. While the pull factors included 'the convenience of the facilities', 'information', 'easy access to the National Park' and 'a variety of tourism resources'.

Kruger and Saayman (2010) found that visitors to Kruger National Park in South Africa were motivated by escape, novelty, nature, nostalgia, activities and attractions. Key to the Kruger and Saayman's (2010) research was the suggestion that motivations of visitors to National Parks will vary depending on the resources (both natural and man-made) that the National Park has to offer.

What is evident from the findings of the studies on visitors of National Parks all over the world is that similar motivations keep appearing. Such motivations include the need for escape, nature, family time and novelty. When reviewing the literature on the motivations of visitors to National Parks, the suggestion by Kruger and Saayman (2010) that the motivations of the visitors will vary depending on the resources of the National Park is evident as each study reported slightly different findings.

2.9 Outdoor Recreation and Motivation

Research into the motivations of outdoor recreationists was prominent in the 1960's but this research was rather limited as researchers, such as Burch (1969, cited in Cordell, 1999), only focused on specific outdoor recreation activities such as fishing, hunting and camping. Using an experimental approach, Driver and Knopf (1977) conducted a comprehensive study with the purpose of understanding what motivates people to participate in outdoor recreation activities. Their approach focused on creating an understanding into people's motivations, with a particular emphasis on ascertaining and understanding how an individual's psychological outcomes influenced what activity they choose to participate in, and which outdoor recreation location they prefer (Driver

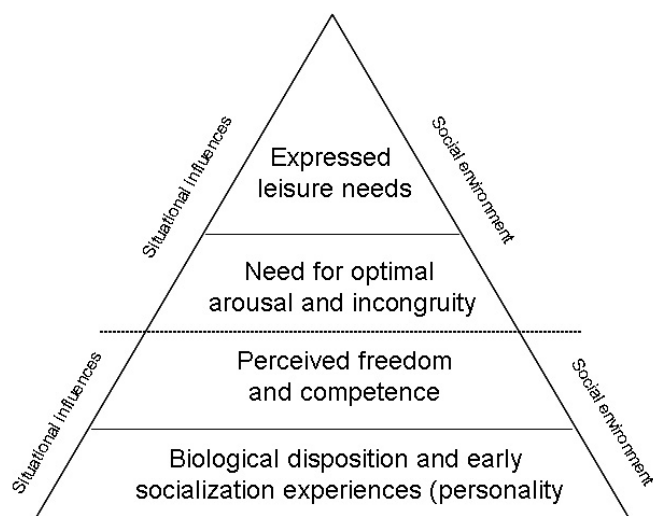
& Knopf, 1977). The culmination of Driver and his colleagues work has been the creation of the Recreation Experience Preference (REP) Scale which according to Driver and Knopf (1977), and Driver and Tarrant (1996), identifies the various types of motivations outdoor recreationists have. The premise of the REP Scale is that recreation participation should be viewed as a “psycho physiological experience” (p.169) and should not be viewed “merely as an activity” (p.169).

This section will look at the motivations of outdoor recreationists. It will review the current literature that focuses on the individual motivational factors that motivates individuals to participate in outdoor recreation.

2.9.1 Levels of Casualty of Leisure Behaviour

Motivations for leisure are a function of socialisation and biological dispositions that shape personality but are only apparent at the upper levels of the hierarchy of needs (Iso-Ahola, 1980; Plummer, 2009). Iso-Ahola (1989; 1999) proposed a model that focuses specifically on the motivation of leisure behaviour (Figure 2.5). Like Maslow’s (1970) Hierarchy of Needs, Iso-Ahola (1980) proposed that leisure behaviour is arranged in a hierarchy, with levels of causality taking into account situational influences as well as the social environment.

Figure 2.5 Iso-Ahola’s (1980) Levels of Causality of Leisure Behaviour



Iso-Ahola's Levels of Causality of Leisure Behaviour (Mannell and Kleiber, 1997)

According to Iso-Ahola (1980), causality of leisure and play behaviours are multifaceted and as such cannot be explained by a single factor or concept. Iso-Ahola (1980) suggested that while previous theories into leisure behaviour are not totally inadequate, “they do not consider that different persons participate in the same activity for different reasons under different conditions” (p.228).

Iso-Ahola (1980) proposed that biological dispositions, social learning experiences or early socialisation, influence the specific activities that an individual becomes interested in. It is these early socialisation experiences and biological forces that shape an individual’s personality providing the foundations of all human behaviour. Iso-Ahola (1980), suggested that the “joint influence” (p.229) of these factors form the foundations of the individual’s need for incongruity and optimal arousal, suggesting that leisure behaviour takes place within a framework of incongruity and optimal arousal. At the next level of causation, Iso-Ahola (1980) concluded that participation in leisure is influenced by intrinsic motivation, suggesting that individuals participate in leisure to experience intrinsic rewards such as experiencing feelings of self determination and competence (with perceived freedom and competence at the heart of intrinsically motivated leisure behaviour). Finally at the top of the pyramid is ‘Leisure Needs’. Leisure needs are the responses that individuals give when they are asked why they participate in a particular leisure activity (*ibid*).

According to Iso-Ahola (1980), for leisure behaviour to be fully understood it needs to be analysed at different levels of causality, suggesting that when one examines leisure motivation “it is important to keep in mind the specific levels of causation” (Iso-Ahola, 1980, p230).

2.9.3 A Causal Model

Ewert (1989) suggested that participation in outdoor recreation activities can stimulate personal growth, enhance self concept and create opportunities for self actualisation. Ewert (1989) developed a framework (Table 2.4) which related to beliefs, attitudes, intentions and behaviours for participation in outdoor recreation activities. The framework (Table 2.4) contains dimensions of:

- Predisposing conditions (antecedents),
- Beliefs about the outdoor adventure activity,

- The individuals attitudes about the activity,
- The individuals intention to elicit a particular behaviour such as participation, and
- The ultimate behaviour exhibited by the individual.

Table 2.4 Framework Relating Beliefs, Attitudes, Intentions and Behaviours in Outdoor Adventure Recreation

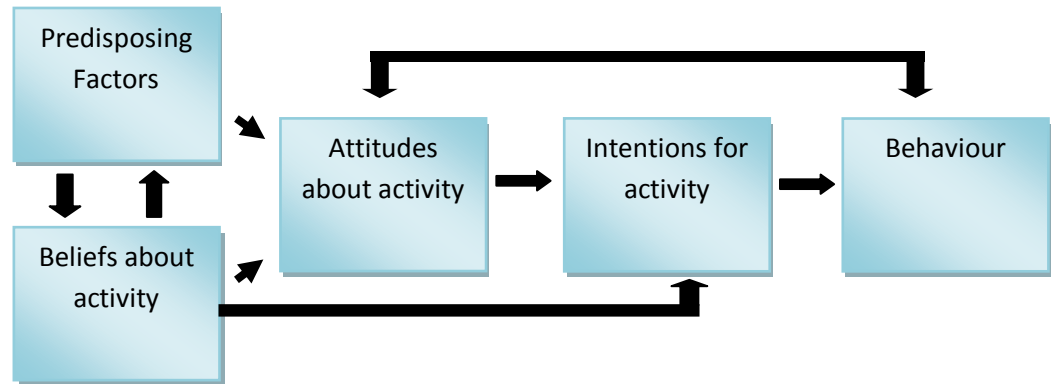
| Predisposing factor | Beliefs about activity | Attitude towards activity | Intentions to perform desired behaviour | Behaviours with respect to outdoor adventure activities |
|---|--|--|--|---|
| Personality factors Demographics Pre-existing activities Attributions Social/psychological environment Sex role orientation Propensity for risk seeking Opportunity spectrum | Intrinsic feelings Information Expectations Perception of risk/danger • Frequency and magnitude • Risky shift • Protective measures • Hazard folklore | Amount of affect • Positive • Negative • Neutral • Belief strength Expectation values Image building | Participate Nonparticipation Extent of participation Time/location Willingness to assume costs • Financial • Time • Opportunities | Engage Non-engagement Disengagement Modification of engagement |

(Ewert, 1989, p. 99)

The framework of each of the above dimensions is made up of a number of variables and, when combined, Ewert (1989) proposed that they collectively comprise of predisposing factors (antecedents) or beliefs. From the above framework Ewert (1989) developed ‘The Conceptual Model of Participation in Outdoor Recreation Activities’ (Figure 2.6). Figure 2.6 illustrates that predisposing factors influence one another with both dimensions influencing the individual’s attitude about a particular activity. The affect of the influenced attitude can directly influence the individual’s intentions for that activity or alternatively it can bypass intentions and directly influence behaviour. The model proposed that intentions can directly influence behaviour. This can be achieved when an individual has developed some positive attitudes about climbing or

mountaineering through past experiences or collected information, and in turn attitudes can influence an individual's decision to join a climbing or mountaineering club or go climbing with friends (Ewert, 1989).

Figure 2.6 Conceptual Model of Participation in an Outdoor Adventure Activity



(Ewert, 1989 p. 99)

2.9.4 Adventure and Risk

A number of definitions have been employed to define the term adventure and its meaning (Ewert & Hollenhorst, 1989; Kane, 2004; Sung, 2004; Sung, Morrison, & O'Leary, 1997; Taylor, 2006) but for the purpose of this study adventure can be best defined by Ewert and Hollenhorst (1989, p. 209) as:

“a variety of self-initiated activities utilizing an interaction with the natural environment, that contain elements of real or apparent danger, in which the outcome, while uncertain, can be influenced by the participant and circumstance”.

Ewert and Hollenhorst (1989) concluded that central to the role of satisfaction within the overall adventure experience is the risk(s) that are involved in the activity. The notion of risk is most commonly associated with the physical risk of serious injury and even death but does not take into consideration the inter play between perceived competence in that activity (Weber, 2001). While there is still a risk of serious injury or even death as individuals gain experience and competence in an activity, such as mountaineering, the perceived risk level is deemed reduced because of increased skill level and experience (Ewert, 1994; Ewert & Hollenhorst, 1989; Priest & Gass, 1998). Perceived risks are subjective, vary from person to person (Plummer, 2009) and have

psychological, physical, functional, time, financial and social dimensions (Ewert, 1989). Such adventure pursuits have led to iconic images being used to convey the inherent excitement that such activities inhibit (Plummer, 2009). For a leisure activity to be an adventure participation in an activity needs to begin because of a human desire (Leroy, 1983; Plummer, 2009). Csikszentmihalyi and Csikszentmihalyi (1999) and Leroy (1983) suggested that desire is driven by the need to experience the unknown, suggesting that individual's desires are driven by something that is missing in their everyday lives, and/or encompassing a spiritual or a humanistic experience.

According to Csikszentmihalyi and Csikszentmihalyi (1999, p.156) the experiences that those seeking adventure cannot find in their everyday lives include:

- The enjoyment of the experience and the use of skills,
- The activity itself: the pattern, the action and the world it provides,
- For the friendship and companionship,
- Developing personal skills,
- Measuring self against own ideals,
- Emotional release,
- Competition, measuring self against others, and
- Prestige, regard and glamour.

Leroy (1983, p. 20) suggested that all adventure experiences contain:

- Some degree of difficulty associated with the enterprise regardless of its form,
- Elements of danger, both real and perceived, that are filled with growth potential and are actually what we seek,
- Commitment to persist (both cognitively and to the unknown) to the eventual outcome, and
- Subjugation to understandable stress which individuals require correct responses to alleviate perilous situations

As adventure recreationists continue to participate in their chosen adventure activities Ewert and Hollenhorst (1989, p. 215) noted that they appear to go through predictable patterns of participation based upon:

- Skill level,

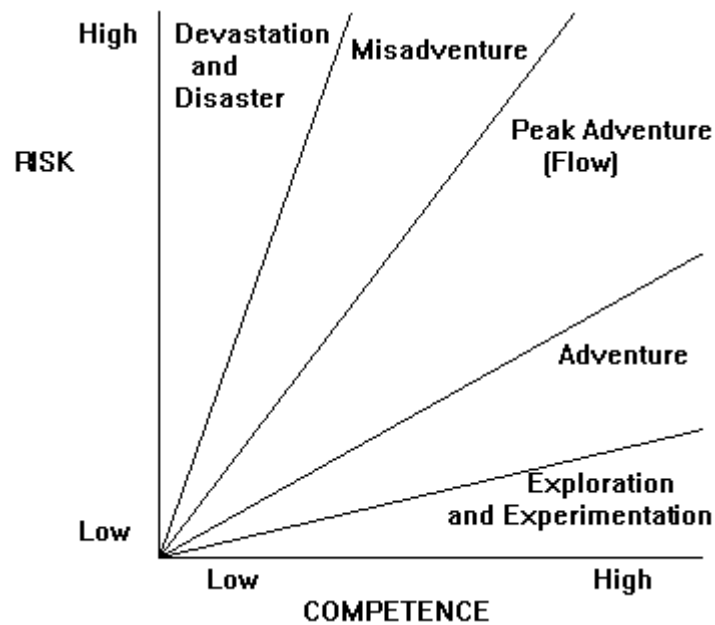
- Frequency of participation,
- Social context,
- Environment preference,
- Types and levels of risk, and
- Motivation for participation.

Beginners who have low skill levels seldom participate in leisure activities, and when they do choose to participate they choose to participate in structured adventures in developed settings with relatively low levels of risk involved (Beedie & Hudson, 2003; Ewert & Hollenhorst, 1989; Kluge, 2007; Pomfret, 2010; Sung, 2004). On the other hand the committed adventurer prefers to participate as a solo adventurer or in small groups with similar experienced people seeking activities that involve high levels of risk in a natural setting (Beedie & Hudson, 2003; Ewert & Hollenhorst, 1989; Kluge, 2007; Pomfret, 2010; Sung, 2004). Priest and Gass (1998) and Pomfret (2006) proposed that adventure is a subset of leisure and consequently must be both intrinsically motivating for the individual and undertaken voluntarily, making it unique to other leisure activities as it involves uncertainty that can only be experienced while participating in leisure.

2.9.5 The Adventure Experience Paradigm

The Adventure Experience Paradigm attempted to relate the reality of the adventure experience to the concept of flow (Martin & Priest, 1986). Martin and Priest (1986) suggested that there is a need to differentiate between the terms risk (potential loss), competency (combination of human and technical skills) and challenge (the relationship between risk and competency). The Adventure Experience Paradigm (Figure 2.7) suggested that there is a peak level of enjoyment attained during adventure sports which balance risk and competence (Csikszentmihalyi & Csikszentmihalyi, 1999; Price & O'Driscoll, 2010).

Figure 2.7 The Adventure Experience Paradigm



Source: Martin and Priest (1986).

2.9.6 Adventure Tourism

Mountains have long been popular tourist destinations but, according to Beedie and Hudson (2003), they have predominately been for the preserve of mountaineers (who do not consider themselves to be tourists as they actively and independently seek adventure). Mountains have the ability to provide tourists with challenging, but achievable, experience components that enable participants to experience high levels of sensory stimulation before, during and after participation (Pomfret, 2006). Adventure tourism has grown in popularity, has become increasingly commercialised (Buckley, 2007) and created a niche in the tourism market (Muller & Cleaver, 2000; Sung, 2004). Mountaineering holidays (e.g. Mountain Zone in the Comeragh Mountains) are usually packaged in a way to offer the individual maximum efficiency and include activities such as rock climbing, mountaineering and back-packing (Pomfret, 2006).

Sung, Morison and O’Leary (1997, p.66) defined adventure travel as:

“a trip or travel with the specific purpose of activity participation to explore a new experience, often involving perceived risk or controlled danger associated with personal challenges, in a natural or exotic outdoor setting”.

Over the years a number of theoretical models have been developed to describe the adventure tourism experience. According to Beedie and Hudson (2003), mountaineering and tourism seem to be merging. With the majority of the population in the developed world living in urban areas, natural environments (mountains, lakes and forests, etc) offer locations that provide a venue for escape from their everyday lives and the opportunity to experience adventure, excitement and stimulation (Beedie & Hudson, 2003).

Despite the notion that adventure is all about the uncertainty of the activity (Kane, 2004; Pomfret, 2006; Price & O'Driscoll, 2010) there is something of a paradox as those involved in the marketing of adventure tourism sell the 'adventure' model by selling experiences that follow smooth and detailed pre-planned itineraries, thus removing the notion of 'uncertainty' and 'self initiated' from Ewert and Hollenhorst's (1989) definition of adventure (described earlier) from the experience (Beedie & Hudson, 2003). According to Beedie and Hudson (2003), there are three key factors which have facilitated the emergence of adventure tourism (and in turn have had direct impacts on mountaineering). These include the deferring of control to the experts, a proliferation of promotional media tools (e.g. brochures and web pages) and the emergence of technology in the adventure settings. These have combined to create a cushioning zone between the normal 'home' location of everyday life and the extraordinary experience that an adventure holiday exhibits (Beedie & Hudson, 2003; Sung, 2004).

Over a period of time mountaineers acquire the skills required (e.g. navigation, survival and rope skills) to make it possible for them to experience independent and unguided outings. However these independent outings have become increasingly difficult as the frames between adventure and tourism overlap. Beedie and Hudson (2003) suggested that as adventure and tourism moved closer together the boundaries between them become hazy. A ten day hike in Peru along the Machu Picchu trail with National Geographic Travel costs five thousand United States Dollars (National-Geographic, 2012), while a twenty day hike in the Himalayas taking in Everest Base Camp and the Gokyo Lakes will cost just under three thousand Dollars (Adventure-Travel, 2012). More recently, organisations such as the Irish Heart Foundation and Focus Ireland (Four Peaks Challenge) are using these adventure tourism experiences to entice people to raise money for their charity by offering adventure experiences in return (Focus-Ireland, 2011).

2.10 Adventure Recreation Model

The Adventure Recreation Model (ARM) by Ewert and Hollenhorst (1989) was designed to help researchers identify the motivations of those involved in adventure recreation activities, such as mountaineering. The ARM is based around two relationships. Firstly, the motivations which the participants inhibit drive them to participate in their chosen activity (from a gentle stroll along a loop walk to a vigorous climb up a mountain) and secondly, that there is a correlation between those motivations and the participants level of engagement in that activity (Ewert & Hollenhorst, 1989, 1994; Young, Anderson, & Anderson, 2002). Following Ewert's (1985) earlier study when he examined the relationship between the motivations of mountaineers and their level of experience, Ewert (1985) and Young *et al.*, (2002) found that motivations differed between the individuals based on their self reported level of experience in the activity.

Ewert's (1985) study found that the more experienced climbers are more stimulated by intrinsic motivations (such as experience stimulation) to participate in mountaineering, whereas the less experienced participants are more directed by extrinsic motivations (such as reward and recognition).

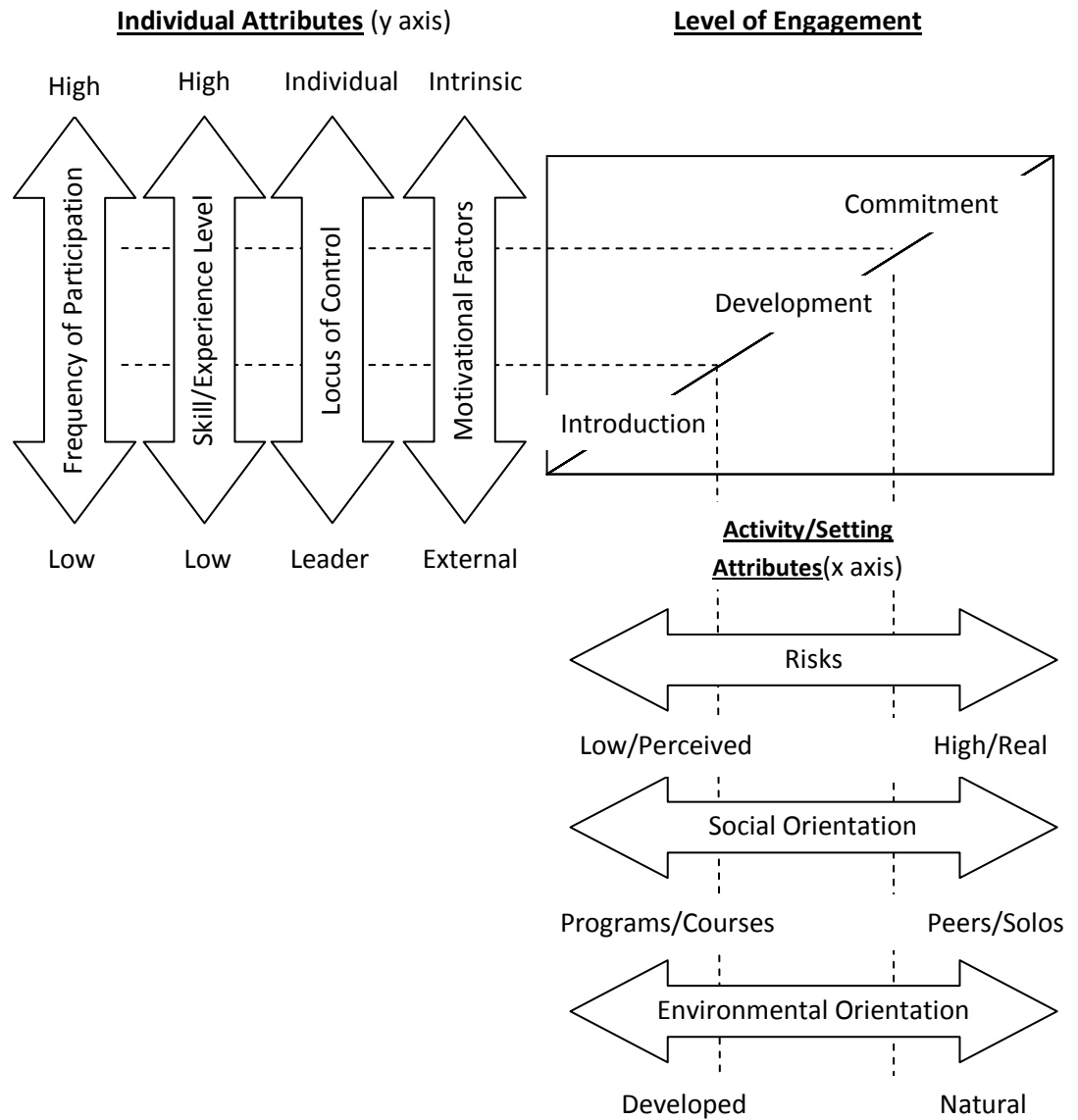
The introduction of the ARM in 1989 concluded that participants of adventure recreation activities exhibit characteristic patterns (Ewert & Hollenhorst, 1989). Young, *et al.*, (2002) supported the findings of Ewert and Hollenhorst's (1989) study as they identified that correlations occur between the characteristics of the participants and their levels of experience in their adventure recreation activity.

According to Ewert (1985), Ewert and Hollenhorst (1989), Todd *et al.*, (2002) and Young *et al.*, (2002) the Adventure Recreation Model (Figure 2.10) suggested that as level of engagement and experience in an activity (mountaineering) increase:

- Skill level increases,
- Locus of control becomes more individualised,
- Frequency of participation increases,
- Preferred risk level increases,
- Preference for natural conditions increase,
- Social conditions move from groupings to expert only or solitary, and

- Motivations of challenge, achievement and risk taking increase or prevail.

Figure 2.10 Adventure Recreation Model



(Ewert and Hollenhorst, 1989, p. 136)

In a later study, Ewert (1993) found that individuals who have little experience in mountaineering tended to be members of structured groups and organisations (i.e. walking/mountaineering clubs) and preferred to engage in less challenging settings (i.e. loop walks and walking trails). Intermediate climbers (while still members of clubs and organisations) prefer to tackle harder climbs and routes but opt to engage in their activity in groups or with others who are of similar experience or higher (Ewert, 1993). Adopting a behavioural view Ewert (1985, 1993, 1994) and Ewert and Hollenhorst

(1989) suggested that the more serious climbers have a strong, deep-seated need for arousal, self determination, individualism and autonomy and are less likely to be members of walking clubs and organisations, but they are likely to be associated members of national organisations (such as Mountaineering Ireland).

2.11 Motivation of Mountaineers

Serious climbers punish themselves physically, mentally, and emotionally. Pushing themselves to the point of exhaustion, risking life and limb for the ultimate thrill and experiences that is to be had in the mountains (Levenhagen, 2010). The Irish countryside acts as a playground for mountaineers to develop and enhance their skills ensuring that they are ready for the next stage (i.e. the Alps, Everest etc.).

Using a sample of high altitude mountaineers Ewert (1993) examined thirty one individual motives for participation during a particular climb. Ewert (1993) found that those climbers who reached the summit demonstrated stronger motives than those who were unsuccessful in reaching the summit in areas of accomplishment, recognition and developing their climbing skills. The unsuccessful climbers placed greater importance on motives such as friendship, catharsis, photography and viewing the scenery. This research was collaborated by the findings of Levenhagen (2010), who also found that climbers are motivated to climb by extrinsic motivations including achievement and self image and intrinsic motivations of flow and self spirituality. When Ewert (1993) grouped the individual motives into factors, his research showed that successful climbers reported higher levels of importance for Excitement/Exhilaration, Image and Social aspects.

2.12 Long Distance Trekkers

One of the great virtues of walking is that it is so dynamic and diverse that there is scope to suit people of all abilities (Kaye & Moxham, 1996). One sub-set of recreational walking is long distance walking, as identified by Kaye and Moxham (1996). Unlike the traditional sun holiday, long distance walking/trekking is able to fill many of the motivations that people seek in a holiday. The benefit of long distance walking is that the tourist industry has been able to make long distance walking routes into an attractive and appealing holiday, providing the tourist with a variety of experiences (e.g. scenery, history, culture, etc) that are experienced over a number of days (Breejen, 2007).

By definition long distance walking routes provide a “welcoming access” (p. 176) to the countryside where the access does not place an unreasonable burden on those who live and work in the area ensuring that the improved access does not impair the quality of the natural environment (Breejen, 2007). In Ireland there are forty three National Waymarked Way Trails. The Kerry Way is the longest trail covering two hundred and fourteen kilometres in a circular route through County Kerry (NWWAC, 2007).

2.13 Motivational Factors

As previously stated the splendour of the Irish countryside attracts people from all over Ireland, and from abroad, to view the stunning scenery. The benefit of the Irish countryside to cater for people from all walks of life and for all levels of ability makes the Irish countryside appealing to many people. This next section will look at the motivational factors that make the Irish uplands appealing to many people.

2.13.1 Motivational Factor: Physical Fitness/Exercise

As stated earlier, recreational walking far exceeded any other form of physical activity in Ireland with almost three quarters of the Irish population reporting that they had walked for recreational purposes during the summer months of 2002 (Curtis & Williams, 2002). By 2008 over two million trips were undertaken by Irish residents for the purpose of walking/hiking in Ireland (Failte-Ireland, 2009).

Research has shown that psychological and biomedical benefits are derived from participation in, and maintaining, physical activity levels (Longbottom, Grove, & Dimmock, 2010; Wesson, Wiggins, Thompson, & Hartigan, 1998). It has also long been established, that there is a link between “physiological health” (p.27) and increases in physical activity levels (Duvall, 2011). Research has also shown that increasing physical activity levels can prevent serious health issues from occurring. Such health issues include:

- Cardiovascular disease including: hypertension, coronary heart disease, cerebral infraction (stroke) and atherosclerosis
- Obesity,
- Diabetes,
- Gall bladder disease,

- Various types of cancer, and
- Osteoporosis.

(Duvall, 2011; Green, O'Driscoll, Joyner, & Cable, 2008; Kraus & Slentz, 2009; Lavie & Milani, 2008; Wesson, *et al.*, 1998)

Forty percent of all deaths in Industrialised nations in the Western world are of a result of cardiovascular disease (Wesson, *et al.*, 1998). In Ireland obesity is on the increase, with twenty six percent of males and twenty one percent of females over the age of eighteen considered to be obese (McGreevy, 2012). Wesson *et al.*, (1998) reported that women who have more than thirty five per cent body fat and men who have more than twenty five percent body fat are considered to be obese.

Research has shown that regular exercise can reduce the risk of developing some forms of cardiovascular disease by approximately thirty per cent (Green, *et al.*, 2008; Wesson, *et al.*, 1998). As individuals exercise, the low density lipoprotein levels reduce and are replaced by high density lipoproteins (Lavie & Milani, 2008). The high density lipoproteins remove cholesterol from the walls of the arteries and transport the cholesterol to the liver where it is metabolised (*ibid*). Exercise also reduces cholesterol by slowing the amount of fat depositing on the walls of the arteries (Green *et al.*, 2008; Lavie & Milani, 2008).

Research by Bucliner and Miles (2002) suggested that the increasing advancements in technology have contributed to the decreasing physical activity levels (especially in children). Technology has contributed to satellite television, interactive games consoles and the internet. People no longer have to leave their house to go shopping or play with their friends as all of that can now be done online while sat in front of a television, monitor or games console (McGreevy, 2012).

Engagement in physical activity involves a “complex interaction” (p.574) between behavioural, psychological and social influences (Longbottom, *et al.*, 2010). A motivational profile of individuals who were engaged in high activity levels suggested that those involved in regular physical exercise were motivated by enjoyment of the activity, they had high task orientation, high effort, and high perceived competence levels in their chosen activity (Lin, *et al.*, 2007; Wang & Biddle, 2001; Wang, Biddle, Chartzisarantis, & Spray, 2002). An earlier study on the motivational profile of individuals who had low physical activity levels found that people who are less active

have low levels of perceived competence and had low levels of boredom and autonomy (Biddle & Ntoussmantis, 1999).

Recent findings showed that physical activity levels increased in response to improved access to walking and cycling trails in the countryside (Librett, Yore, & Schmid, 2006). Libret *et al.*, (2006) suggested that people who accessed and used trails on a weekly basis were twice as likely to meet the recommended physical activity participation levels as those who never used the trails. The natural environment can serve to play an important role in the facilitation of physical activities, while helping to improve sedentary behaviours (Barton, Hine, & Pretty, 2009). The 1999 study by Bergin and O'Rathaille found that one of the main reasons that people gave for visiting the Irish uplands was for exercise and sport. According to Barton *et al.*, (2009), walking in the countryside surrounded by nature can serve benefits for recreation, travel, exercise, companionship and relaxation. Libret *et al.*, (2006) and Barton *et al.*, (2009) suggested, that access to trails in the countryside serves as a sustainable option in the fight against obesity while having the added benefit of improving physiological and psychological wellbeing.

2.13.2 Motivational Factor: Escape

Participants of outdoor recreation who are motivated by stimulus avoidance do so to escape from everyday stimulating life experiences (Kruger & Saayman, 2010; Stewart, Harada, Fujimoto, & Nagazumi, 1996). Some individuals are motivated by a need to avoid stimulation, seek solitude, avoid social contacts and seek calm conditions (Lauterbach & Kozak, 1998). Others choose to participate in a recreational activity that enables the individual to rest and unwind (Beard & Ragheb, 1983).

Participants who are motivated by stimulus avoidance and seek to escape, experience high levels of timelessness and solitude (Kruger & Saayman, 2010), moderate levels of care and low levels of primitiveness (Borrie & Roggenbuck, 2001). Research by McIntyre and Roggenbuck (1998) showed that individuals who are motivated by the need to escape and get away from everyday life situations are more likely to engage in passive activities such as walking and fishing, as those who seek solitude experience timelessness and become more at one with the environment.

As an individual enters sites seeking solitude they discard many of the concerns of their everyday life situations (Borrie & Roggenbuck, 2001; Pohl, Borrie, & Patterson, 2000). Instead they adjust and adapt themselves to the experience of the environment and the demands the environment places on them. Borrie and Roggenbuck (2001) also noted that individuals who are motivated by the need to escape are less frequent visitors to outdoor recreation sites. Pohl *et al.*, (2000) suggested that once an individual has experienced solitude in that environment, the subsequent acquired feelings and knowledge of that environment and the self may affect the individual's sense of identity, making the value of the environment more important to the individual.

All individuals need to get away from everyday life to experience their innate identity (Lengkeek, 2001). According to Lengkeek (2001) and Kruger and Saayman (2010) the motivation to disassociate from everyday life is dominated by the need to reenergise. Each individual has their own way of recharging energy levels. Some individuals prefer their own solidarity, whilst others prefer to experience with others (Raadik, Cottrell, Fredman, Ritter, & Newman, 2010).

2.13.3 Motivational Factor: Social

A human is born into the world as a socially neutral individual. From this moment on, the infant is exposed to the socialisation process whereby the culture of the community and/or society is instilled in the individual (Bixler, Floyd, & Hammitt, 2002; Deci & Ryan, 2000; Ibrahim & Cordes, 2002; Iso-Ahola, 1980; Iso - Ahola & Hatfield, 1986; Mannell & Kleiber, 1997). According to Ibrahim and Cordes (2002), the socialisation process helps the individual to correctly play out their role within society by enabling them to enact their assigned roles within society, acting as a threshold to self esteem.

During one's lifetime, humans undertake many roles in society including roles in leisure as well as contributing towards environmental attitudes in later life (Ewert, Place, & Sibthorp, 2005). Studies that focused on the age of socialisation into outdoor recreation participation concluded that the earlier individuals are exposed to outdoor recreation activities during their childhood has been found to have significantly positive effects on participation rates during their adult years (Manning & Vaske, 2006). This concurs with the research of Hendee (1969, cited in Ibrahim and Cordes, 2002) which suggested that those who experienced leisure experiences while under the age of fifteen years were seventy percent more likely to participate in the same outdoor leisure experiences

during adulthood. This does not suggest that those who were not socialised into outdoor recreation activities as children would be unable to be socialised into outdoor recreation participation during adulthood.

The first proponent of socialisation process to the field of leisure studies was Iso-Ahola's (1980) model of leisure socialisation, which recognised the importance of social and cultural forces. According to Iso-Ahola (1980), leisure socialisation is a lifetime process and can be best defined as "a process by which basic leisure knowledge, attitudes, values, skills and motives are learned and internalised, with the net result of socially relevant and psychologically rewarding leisure behaviour" (p.132).

Collaborated by White (2008), Iso-Ahola (1980) suggested that social agents shape what experiences an individual is exposed to and are involved in, determining one's perceived ability level in that activity. According to Ibrahim and Cordes (2002), social agents can be classified into two groups, primary and secondary. Despite the changing nature of family life in the twenty first century, primary groupings (including family, peers and intimate relationships and friends) remain the most important contributory factor in the socialisation process providing both physical and social requirements (space and environment) for outdoor recreational pursuits (Ibrahim & Cordes, 2002; Plummer, 2009). Social agents can directly influence an individual's choice and range of leisure experiences by providing individuals with certain encounters and by encouraging participation in leisure activities. It is these social agents that shape how an individual perceives their own competence in an activity thus concluding that involvement in a particular leisure activity is a function of perceived competence and self determination (Iso-Ahola, 1980).

As part of Iso-Ahola's (1980) Process of Leisure Socialisation, everyday leisure experiences can directly modify one's perceived competence and self determination (can both increase and decrease these levels). As an individual becomes more socialised into a leisure activity their participation can also affect social agents leisure participation through repartition of attendance (parents often take their children each week to their leisure activities, thus they can become involved in the same leisure activity as their child) indicating that socialisation is a two way process (Iso-Ahola, 1980; White, 2008). The Process of Leisure Socialisation model demonstrates the continuing nature of the

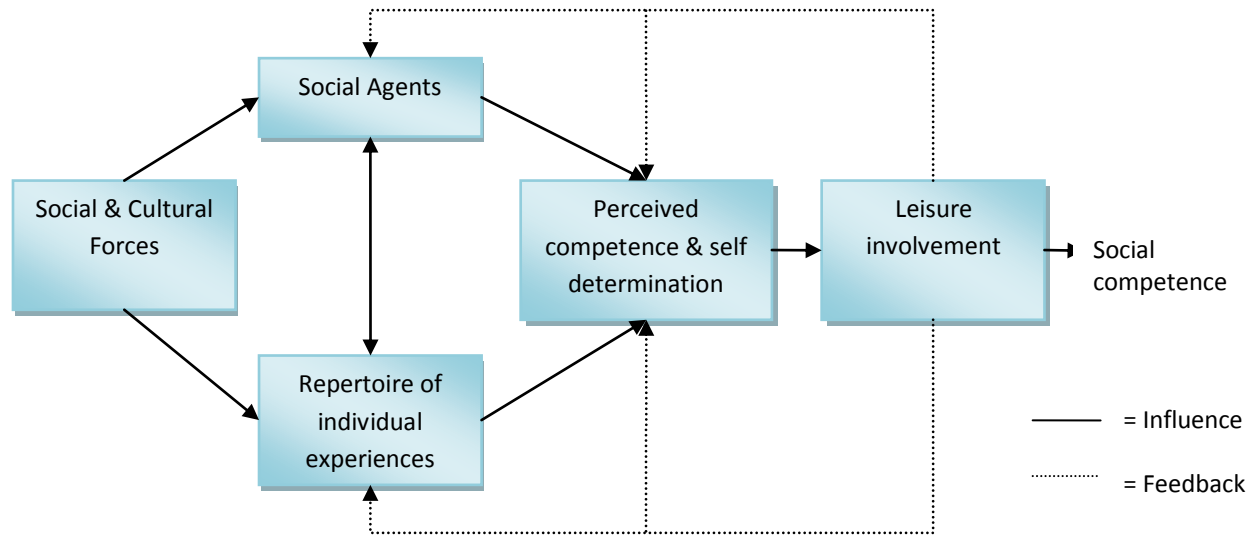
socialisation process. Involvement in leisure is not only a matter of consuming time but rather developing an individual's interpersonal competence (Iso-Ahola, 1980).

The socialisation process does not end as an individual reached adulthood, acquires full time employment or gets married. Socialisation is a process that changes with the times (Iso-Ahola, 1980; Kleiber, 1999; Schimmack, *et al.*, 2004). It may be that the socialisation processes change as people age and develop new circles of friends and peers (i.e. golf outings with work colleagues or dinner with new partners) but even long after careers have been launched and children raised, leisure activities can still provide opportunities for an escape against the process of socialisation (Kleiber, 1999).

2.13.3.1 Social Interaction

According to Iso-Ahola (1980) intrinsically motivated leisure behaviour often takes place in social contexts. Many leisure activities are structured to require the presence of others enabling individuals to define their perceived interpersonal competence, suggesting that social interaction can be both an effect and cause of leisure participation. Empirical evidence has concluded (Ewert, 1993; Ewert & Heywood, 1991; Ewert & Hollenhorst, 1989; Iso-Ahola, 1980; Pohl, *et al.*, 2000; Slinger & Rudestam, 1997) that social interaction is a strong and unambiguous motive for participation in leisure with the development of close friendships and cooperation with others scoring high responses. Iso-Ahola, (1980) concluded that the development of relationships with others was the second most important contributor of leisure participation with participants suggesting that leisure participation 'strengthens relationships' and that individual's participate 'for the companionship'. While social interaction may not be the most significant contribution factor to leisure participation it is however considered to be an important factor (Iso-Ahola, 1980).

Figure 2.8 Process of Leisure Socialisation



2.13.3.2 Group type

Every day in the Irish uplands there are people participating in recreation activities either on their own individually or within a group. When comparing the motives of people who visit upland locations in groups, Ewert (1993) proposed that several consistencies emerged. Ewert (1993), who conducted his research on a group on Mount McKinley, concluded that groups play an important role in mountaineering and as such can vary along a number of important parameters (i.e. decision making, responsibilities, leadership and expected behaviours). Motives for participation also varied. For example, when individuals join a guided walk/group where most of the decision making processes are made for them leaving them totally reliant on others, they may have different motives than someone who is climbing by themselves.

By dividing his groups in three categories guided, independent and solo climbers, Ewert (1993) found that members of guided group, reported higher motive scores than solo climbers and/or independent climbers in excitement/exhilaration and social aspects. When compared with the guided group the solo climbers scored the lowest scores for all of the motive groups (exhilaration/excitement, social aspects, image, aspects of climbing and catharsis/escape, with the exception of catharsis/escape) than the guided group, suggesting that a solo climbing experience is a different experience than other types of mountaineering.

2.13.4 Motivational Factor: Nature/Environment

According to den Breejen (2007), experiences set in natural environments are becoming increasingly popular with tourists. Through the designation of national parks and wilderness areas, accessibility to these locations and sites is becoming increasingly easier to accommodate large numbers of people. The natural landscapes (forests, rivers, lakes, hills, and mountains) that these routes go through and over can provide individuals with a means to experience positive and mental fitness (Svarstad, 2010). Research by Borrie and Roggenbuck (2001) found that walkers on long distance walking routes immerse themselves into the environment as the intensity of the experience increases but they suggested that this immersion decreases towards the end of the experience. However, Breejen (2007) found that this immersion only intensifies as the walker reaches a climatic high.

Research conducted on the motivations of visitors to Kruger and Tsitsikamma National Parks in South Africa found that one of the main reasons that people visited the area was to experience the scenic beauty/naturalness of those regions (Kruger & Saayman, 2010). Respondents also reported that they visited the Backcountry “to enjoy the outdoors” and “to encounter the wilderness” (*ibid*, p. 40). According to Kaplan and Kaplan (1989), human’s prefer to participate in recreation in a natural setting not only because of the natural scenery, but because natural settings allow individuals to experience the openness, lack of structure and transparency that a natural setting provides. Participation in recreation in the natural environment plays a fundamental role in achieving desired outcomes from participation which results in satisfaction of participation (Pigram & Jenkins, 2006).

2.13.4.1 Satisfaction and Nature

Closely associated with motivation in social psychology, satisfaction can be addressed as either a need or evaluative item in multiple scales (Plummer, 2009). In leisure research, satisfaction is seen as a source of evaluation for outdoor recreation (Devesa, Laguna, & Palacios, 2010). It is the “degree of congruency between the actual experience of individuals and their aspirations or expectation” (Mannell and Kleiber, 1997, p 104).

Numerous studies have found that there is a significant relationship between satisfaction and destination loyalty with researchers all concluding that individuals who were satisfied with a given location are more likely to return to that location (Alegre & Cladera, 2009; Alegre & Garau, 2010; Devesa, *et al.*, 2010; Dmitrovic & Zabkar, 2010; Huang & Hsu, 2009; Neal & Gursoy, 2008; Sirgy, 2010; Yoon & Uysal, 2005). According to Alegre and Cladera (2009), key to individual satisfaction is the “subjective evaluation of situational variables” (p.671), such as parking and access to trails (e.g. Glendalough in the Wicklow Mountains National Park and Cronins Yard in the MacGillycuddy Reeks). Alegre and Cladera (2009) suggested that it is the outcome of this subjective evaluation which determines an individual’s level of satisfaction (e.g. was there adequate parking facilities? was the weather what I expected? was the site challenging enough?).

When evaluating satisfaction in a recreational setting, research has shown that (Swan and Combs, 1976; Fesenmaier and Leiber, 1985; Connelly, 1987 & Absher *et al.*, 2003) satisfaction derives more from expressive values more so than instrumental values. These studies highlighted the importance of expressive attributes that are related to visual perspectives and preference. Absher *et al.*, (2003) stated that instrumental attributes located at sites are less likely to contribute to visitor satisfaction when compared to the natural visual attributes of a site. When relating this research to an Irish perspective, Swan and Combs (1976), Fesenmaier and Leiber (1985) and Absher *et al.*, (2003) suggested that natural sites that have little or no instrumental attributes (e.g. Blackstairs Mountains), such as managed trails and footpaths, impact greater on individual satisfaction levels more so than managed sites (e.g. John F. Kennedy Park, New Ross).

Research has shown (Connelly, 1987; Kyle, Absher, Hammitt, & Cavin, 2006; Li, Absher, Graefe, & Chung, 2008; Manfreda, Driver, & Brown, 1983; Swan & Combs, 1976) that the provisions of excellent facilities and services are not enough to satisfy recreationists. Yoon and Uysal (2005) concluded that one of the greatest stimulators of satisfaction for walkers is the location and setting. According to Yoon and Uysal (2005), the greatest stimulator for satisfaction derives from locations which have natural site attributes and visual scenic beauty.

2.13.4.2 Affective (Emotional) Responses

Barnett (2006) found that individuals who turn to the environment rather than to their inward imaginations to entertain themselves are more likely to engage in outdoor activities. An individual's mood can be influenced by both environmental and personal variables (Hull & Michael, 1995; Hull, Michael, Roggenbuck, & Walker, 1996; Stewart & Yi, 1992; Walker, *et al.*, 1998). Hull and Michael (1995) showed that short visits to urban parks or short walks along rural roads can affect an individual's mood in the short term (during the activity) but concluded that mood returned to its original state when the activity had ended. Whereas, day hill walkers who have a predetermined destination such as walking through natural scenic areas, such as Loch Tay in County Wicklow, retained high emotions and less negative emotions long after the activity was over.

According to Ibrahim and Cordes (2002), the relationship between the individual and the setting can create multiple states of mind as individuals experience feelings of connection to the fundamental qualities of the site experience. Experiences such as oneness (feeling connected to nature, part of nature and immersed in nature), humility (feeling of being in awe and insignificance in the glory of nature), and primitiveness (experiencing nature without technology) are all part of the emotional experience of outdoor recreation (*ibid*).

After a lengthy study to examine the relationship between the individual and the setting, Ibrahim and Cordes (2002) concluded that the relationship between the two can be divided into three perspectives (experimental aesthetics, environmental cognition and behaviour ecology). The first approach, experimental aesthetics, focused on the meaning of a setting through the individual's experience. Research in this area is focused on the organisational qualities of the natural environment (Borrie & Roggenbuck, 2001) and on the quality of any structures in the outdoor settings (Bauer, Wallner, & Hunziker, 2009). It combines the individual's appreciation of the setting, and how that setting elicits a response of physical arousal from the individual and is seen as major source of intrinsic motivation (Ibrahim & Cordes, 2002). According to Plummer (2009), experimental aesthetics suggests that natural landscapes and features are associated with the perception of environmental quality, especially when related to outdoor recreation. This suggests that the greater the individual's perception of the

naturalness of a landscape, or setting, the greater the quality of experience that setting will provide.

The second approach, environmental cognition, focuses on how individuals will attach themselves to an environment, based on the individual's perception of the natural environment (Ibrahim & Cordes, 2002). Iso-Ahola (1980) suggested that perception is vital to understanding how individuals will attach themselves emotionally to an environment. Preconceived perceptions of a site can influence the potential that a site has to satisfy an individual's recreational needs (Zabkar, *et al.*, 2010). If a site satisfies or exceeds those expectations then the emotional response to a site will be positive (i.e. happiness, joy, satisfaction). Whereas if an individual's preconceived expectations fail to satisfy those needs then the emotional response will be a negative one (e.g. anger, frustration, sadness). To measure the subjective quality of an outdoor recreation environment, Iso-Ahola (1980, p. 278) proposed the following formula:

$$\text{PQRE} = \frac{\text{Observed quality of recreation environment}}{\text{expected quality of recreation environment}} = \frac{(\text{observed environmental quality}) \times (\text{observed psychological quality})}{(\text{expected environmental quality}) \times (\text{expected psychological quality})}$$

The Perceived Quality of a Recreation Environment (PQRE) is based on the assumption that an individual has two basic expectations prior to entering an outdoor recreation environment. Firstly, the expected environmental or aesthetic expectations (open water, forested hills, undeveloped natural country) are observed by the individual and secondly, that the individual experiences the psychological expectations, intrinsic rewards (i.e. escape from everyday routine and relaxation) or entities that they expected to obtain during their visit to the outdoor environment (Iso-Ahola, 1980).

The third and final approach, behavioural ecology, is concerned with how human behaviour relates to ecological factors (Ibrahim & Cordes, 2002; Plummer, 2009). According to Ibrahim and Cordes (2002), behavioural ecology is interested in how people behave in everyday settings (including natural settings) and not in settings that are contrived by research needs. Individuals who are sensitive to the "spatial property" (p.539) of the environment categorise environments based upon their perceptions of that site (Zabkar, *et al.*, 2010). When the individual is in that setting, behaviours become

influenced due to environmental and social constraints (White, 2008; Zabkar, *et al.*, 2010). Such behaviours include an individual who ignores warning signs or no entry signs because they think that the warning did not apply to them (Kaplan & Kaplan, 1989).

2.13.5 Motivational Factor: To Learn

Rural tourism has been developed over the years to facilitate the motivations of visitors to local rural areas (Frochot, 2005). The underlying goal of any manager involved in recreation, and any participant of recreation is the quality of the experience (Manning & Vaske, 2006). According to Manning and Vaske (2006), managers want to provide recreation opportunities that are of a high quality while, the recreational user wants to have a high quality experience. In reality, providing high quality experiences that will suit every type of recreational participant is impossible as a quality experience for one person may not be a quality experience for another (Ewert & Hollenhorst, 1989). Key to recreational planning is getting a balance (Pigram & Jenkins, 2006).

The 1999 study by Bergin and O'Rathaille found that approximately forty per cent of foreign visitors and approximately thirty per cent of Irish visitors reported visiting the Irish uplands for the purpose of studying nature and/or wildlife. The same study also found that approximately twenty per cent of Irish visitors and fifty per cent of foreign visitors choose to visit the Irish uplands to see historical and/or cultural sites (*ibid*).

The past twenty years has seen a considerable growth in the private outdoor education/activity centres throughout Ireland. Indeed, an opportunity to experience outdoor recreation occurs during one's school years with opportunities to study outdoor recreation at Post Leaving Certification (FETAC Level 5 in Outdoor Recreation) and at Third Level (Outdoor Recreation Management at Galway Mayo Institute of Technology) increasing all the time.

Over the last thirty to forty years much development (visitor centres, cafe and toilet facilities) has taken place in upland locations (Pritchard *et al.*, 2009). Such developments have been used to teach people about the flora and fauna that is in the locality as well as attracting visits for educational purposes from schools and colleges (Saxena, 2005)

According to Lundvall (1992, cited in Saxena, 2005), “learning by interacting” (p.280) is an approach to learning that tourism providers use to attract people to visit a certain area or region. When marketing upland areas many marketing campaigns focus on providing information to the public that contains all of the positives that the area has to offer to make that region stand out against any other region with similar attributes (Kruger & Saayman, 2010; Park & Yoon, 2009; Pomfret, 2010). While many of the upland areas in Ireland are awash with scenic beauty it is ‘what else’ the region has to offer that sets it apart from everywhere else (Pritchard, 2009).

There is much to be learnt and discovered in the Irish uplands. The uplands have an abundance of flora and fauna and, cultural and historical sites. There is much to discover in the uplands whether it is just for your own curiosity and knowledge or for academic purposes.

2.13.6 Motivational Factor: Challenge

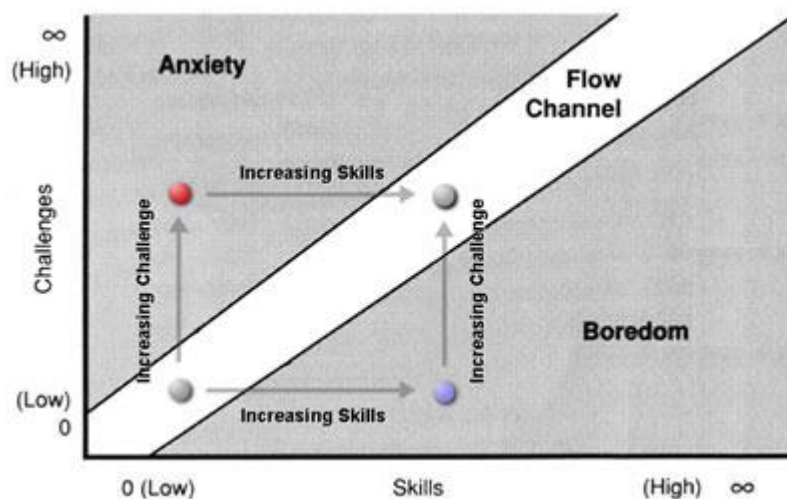
One element of upland recreation in Ireland is the challenging landscape that one can immerse themselves in (O'Dwyer, 2010). The Irish uplands provide opportunities for activities that require little or no challenges (strolling and rambling) to activities that are full of challenges (climbing and mountaineering). In the Irish Upland individuals can set themselves challenges ranging in difficulty by walking a harder/longer/steeper route to climbing a frozen waterfall in winter. Borrie and Roggenbuck (2001) and Breejen (2007) both suggested that individuals are motivated by the challenge of a walk and the expected sense of achievement on completion of the designated challenging route.

The level of challenge that individuals seek will vary from person to person. For some, a two mile walk around a lake will be challenging while other may seek to climb to the top of Carrantuohill in winter while the mountain is covered with snow and ice. Although survival in the wilderness is rarely a concern in modern life, it did once pose a challenge for humans in their quest for survival (Ibrahim & Cordes, 2002). Nowadays, people undertake challenges in nature which enable them to experience self discovery and enhance their self-concept (Kaplan & Kaplan, 1989).

According to Csikszentmihalyi & Csikszentmihalyi (1999), when an individual is involved in completing a number of constant challenges that require the use of appropriate skills and abilities, the individual will experience total involvement (flow

state) within that activity. One element of the flow experience that makes it a desirable and motivating state is the level of absorption the individual experiences during the activity (Csikszentmihalyi & Csikszentmihalyi, 1999; Levenhagen, 2010; Zhang & Jensen, 2007). During a flow state, the individual experiences total involvement within the activity (Zhang & Jensen, 2007). This typically involves a source of constant challenges that requires appropriate skills and abilities to match, providing the individual with immediate and gratifying feedback upon completion (Csikszentmihalyi & Csikszentmihalyi, 1999; Levenhagen, 2010).

Figure 2.9 - Model of Optimal Arousal or Flow



(Csikszentmihalyi & Csikszentmihalyi, 1999)

Where there is a high degree of challenge or a low degree of skill level, anxiety is produced (Csikszentmihalyi, 1990). Similarly where an individual has a high degree of skill level and the challenge is too low the individual can experience boredom (Figure 2.9). For flow to be achieved, the amount of skill level exhibited by the individual needs to be matched by the challenge level of the activity (Csikszentmihalyi & Csikszentmihalyi, 1999; Mitchell, 1983; Plummer, 2009). The state of flow is dependent on the perception of the individual and depends upon their perceptions of their skill levels and the level of the challenge. The activity also needs to be complex and dynamic while providing opportunities for personal growth and discovery (Csikszentmihalyi & Csikszentmihalyi, 1999; Plummer, 2009).

An underlying assumption of flow producing activities is that the activity itself provides opportunities for individuals to challenge the limits of their being, transcending their

former conceptions of themselves by experiencing new experiences and consequently extending their skill levels (Csikszentmihalyi & Csikszentmihalyi, 1999).

Csikszentmihalyi and Csikszentmihalyi (1999) noted that ideally flow would be the result of the pure involvement and not of extrinsic motivations such as rewards, prestige or glamour but when the activity itself becomes the flow experience, the participant experiences the characteristics including knowing exactly what needs to be done and how well they are doing. There is awareness of actions but not of the awareness itself and “even if the action is originally done for extrinsic reason the activity becomes intrinsically rewarding” (p.155).

2.13.7 Motivational Factor: Reward

According to scholars (Brehm, Tittlbach, & Häußler, 2010; Burnik, et al., 2005; Deci & Ryan, 2000; Driver, Michael, & Michael, 1996; Ewert, 1993; Fang, Tepanon, & Uysal, 2008; Hsu, Cai, & Li, 2010), motivations are antecedents that initiate individuals to perform behaviours that can result in attaining a desired outcome. The proponents of the Theory of Planned Behaviour suggested that anticipated and actual outcomes can sometimes act as substitutes for each other (Ajzen, 1991; Ajzen & Driver, 1991, 1992; Kouthouris & Spontis, 2005). Unlike sports participation where the focus of participation is on the winning (Chantel, Guay, Dobрева-Martinova, & Vallerand, 1996; Mallett & Hanrahan, 2004) participation in outdoor recreation is more focused on individual outcomes and desires (Kouthouris & Spontis, 2005; Kyle, *et al.*, 2006; White, 2008).

The 1993 study by Ewert of high altitude mountaineers found that motivations for reaching the summit (e.g. recognition, accomplishment and developing climbing skills) were stronger for the successful climbers when compared with climbers who were unsuccessful in their attempt to reach the summit. Ewert (1993) concluded by suggesting that mountain climbers and other participants of outdoor recreation strive to achieve a successful recreational experience, but they will adjust the importance of motivations for participation depending upon the actual outcome.

A more recent study by Saxena and Dey (2010) studied the motivational factors of adventure recreationists. Saxena and Dey (2010) found that participants of adventure recreation participate to “enjoy the sense of achievement”, “build confidence”, “display

status” and “develop increased self belief in goal setting” (p.177). The workings of Saxena and Dey (2010) were collaborated by the research of Levenhagen (2010). Levenhagen (2010) proposed a three stage model of climbing. The first stage suggests that climbers climb for extrinsic achievement and/or flow. The second stage proposes that “climbers climb to prove their worth to self and others (character)” (p.2) and finally, climbers climb to enable themselves to reach an inner spiritual self (Levenhagen, 2010).

Unlike sports participation, where there is a strong focus on winning, participation in outdoor recreation has its own rewards. While the reward of participation in outdoor recreation can be externally focused (e.g. recognition from others), it can also be internally driven. For some, participation in outdoor recreation is intrinsically driven (e.g. to learn a new climbing technique or to walk further than the previous visit) and unlike sports participation (where the aim to beat an opponent), the reward can be different for every recreational outing (e.g. reaching the summit, completing a designated walk, learning a new climbing technique).

2.14 Level of Involvement

As reported earlier, research by Ewert and Hollenhorst (1989) found that individuals with less experience and low levels of skill in mountaineering tended to be members of structured groups and preferred to engage in activities in less challenging settings. Backed up by additional research, Ewert (1993, p.526) found that a high percentage of beginner and intermediate climbers were members of guided groups. As such, the results from these groups scored higher for “importance of social aspects” than any the other groups (solo or independent climbers) with “for the friendship” scoring the highest level of importance.

Experience can also play a role in motivation. According to Ewert (1993) and supported by Llewellyn and Sanchez (2008), solo climbers tended to be more experienced than other climbers, highly experienced climbers differ from the solo climbers in relation to motivations. Given the high levels of risk involved in solo climbing (no safety rope), those who participate in solo climbing adopt a deliberate decision making process with aspirations and goals (to climb safely and not slip or fall) that are different to those of the highly experienced climbers (Ewert, 1993).

Ewert's (1994) research found that novice climbers are oriented by the physical aspects of climbing and the subsequent image that is portrayed with climbing. Intermediate climbers are more driven by the exhilaration that climbing provides and the decision making process that are involved with a climb, while experienced climbers are driven by the exhilaration of climbing and the opportunities that climbing provides to enable the climber to experience self expression and self testing. According to Ewert (1994), and Todd *et al.*, (2002), climber's progress through a phased development of motivational factors, as well as skill development, with both progressing along a linear line.

Todd *et al's.*, (2002) research on adventure recreationists found that extrinsic motivation scores decreased as the participants moved from beginner to intermediate to advanced levels of expertise, with extrinsic motivations (such as image and social interactions) peaking at the beginner stage, declining a little as it reached the intermediate stages and declining further at the advanced and expert stages. Intrinsic motivations moved in the opposite direction. Additional research by Todd, *et al.*, (2002) found that a predicted curvilinear pattern of importance was evident for the 'adventure', and 'learning' motivational factors with an increasing importance for both intrinsic motives from beginner to expert stages and decreasing for the post expert stages. The extrinsic motivation 'social interaction' also followed the same curvature while other extrinsic motivations of 'escape' and 'stature' decreased with experience and skill development.

2.15 Conclusion

Participation in outdoor recreation has been shown to have a number of potential benefits for the individual. While traditionally centred around the physiologically and psychological benefits of participation researchers have noted the educational benefits and sociological benefits of participation in outdoor recreation activities.

The physiological benefits of outdoor recreation participation have long been established. With obesity in Ireland on the increase and the impact of the recession hitting people hard financially, the Irish uplands provide opportunities for people to be physically active in a natural, sustainable environment while having a minimum impact on the wallet.

Outdoor recreation participation has also been shown to have many psychologically benefits on the individual. The Irish uplands provides recreationists with opportunities to experience solitude, excitement, adventure, challenge and recognition while also providing opportunities to relax, unwind and de-stress.

Outdoor recreation participation is not all about the taking the part in the activity, but providing opportunities for individuals to learn more the environment, the activities and themselves. At many land based upland recreational sites in Ireland there are information centres that provide visitors with information about the local environment (including the local flora and fauna). The visitor centres are very popular among school and community groups, providing individuals with educational information and resources which cater for 'interactive' onsite learning.

The sociological benefits of outdoor recreation participation are derived from the compassion and cooperation required when participating in an activity with others. Participation in groups involves the need to have respect and trust for others in the knowledge that they have the same trust in you. It also provides opportunities to share and confide in others, to learn new skills and knowledge and to develop close friendships and relationships.

Key to the outdoor recreation paradigm is the potential of outdoor recreation to provide opportunities for a number of activities to take place side by side, while catering for individuals of all abilities and experiences. The Irish uplands have an abundance of lakes, forests, mountains and trails which can meet the physiological, psychological, educational and sociological needs of individuals from all walks of life regardless of what level of involvement the individual seeks to engage in during their recreation experience. Outdoor recreation participation really is a life changing experience.

Chapter 3

Methodology

3.1 Introduction

Over the last few decades participation in outdoor recreation activities has increased dramatically (Graefe, Thapa, Confer & Absher, 2000). According to Pritchard, McNamara, Hickie and Markey (2009), eight hundred and thirty four thousand people visited the Irish shores for the purpose of walking/hiking during 2009. Since the 1999 publication by Bergin and O'Rathaille (who established reasons for visiting the Irish uplands), no known published study has been conducted to understand what motivates people to visit the Irish uplands.

Chapter two of this study introduced the body of literature and research that is currently available. The literature review is concerned with personality, motivation and level of involvement of upland, land based, recreationists from around the world, which is central to the upland recreationists in Ireland. This chapter discusses the research methodology, including the design of the research questionnaire, the sampling procedure, data collection and the methods used for data analysis.

3.2 Aim

The aim of this research is to investigate the personality traits, motivations, and level of involvement of those who visit the Irish uplands for the purpose of land based recreation.

3.2.1 Research Objectives

The objectives of this research are to investigate:

- The personality traits of the upland, land based, recreationists,
- What motivates 'upland recreationists' to visit the Irish Uplands?
- The Level of Involvement and Perceived Identity that upland recreationists have with their activity and,
- The relationship between any of the following variables:
 - Personality and activity choice,
 - Motivation and activity choice,
 - Level of Involvement and activity choice,
 - Perceived Identity and activity choice and,
 - Level of Involvement and Perceived Identity.

3.3 Ethical Approval

Prior to the commencement of this research ethical approval from Waterford Institute of Technology (WIT) was secured (ref: 11/HSES/01). This was necessary to protect the rights of all the participants in this study. Ethical approval was granted on the 28th of February 2011 by WIT's Ethical Committee (Appendix A).

3.4 Research Design

The design of this study involved two phases. The first phase was desk based qualitative research and the second phase was quantitative data collection.

3.4.1 Qualitative Research

The initial stage of this research involved desk based research. Collating sources of information and research articles that related to the personality, motivation and level of involvement of land based upland recreationists from around the world.

This included an extensive search of publications and online journal articles. Athens's online allowed the researcher to access online research data bases (via WIT's subscription) including Science Direct, Sports Discuss and EBSCO. The researcher also subscribed to Saga Publishing and Questia Online, while also using internet search engines such as Google Scholar. The researcher also had the benefit of the extensive libraries of Luke Wadding Library in WIT and John Paul the II Library in The National University of Ireland in Maynooth, while Amazon provided access to publications that could not be sourced in Ireland.

The publications and journal articles that were sourced were used in the writing of the literature review, with all of the literature cited in the text referenced accordingly. The review of this literature enabled the researcher to identify that no current research has been conducted on visitors to the Irish Uplands within the parameters of personality, motivation and level of involvement.

This gathering of information provided the basis for the design of this study, as no current research was found to have been conducted on those who visit the Irish uplands for the purpose of land based recreation.

3.4.2 Instrument Design

Following a thorough review of the literature, a four page questionnaire was designed to investigate the personality, motivation and level of involvement of those who participate in land based recreation in the Irish uplands. The questionnaire was divided into six sections, included a total of forty five questions and took under four minutes to administer (Appendix B).

Section A - General demographic information,

Section B – Category of upland recreationist

Section C – Level of Involvement

Section D – Perceived Identity

Section E – Motivation

Section F - Personality

Section A of the questionnaire consisted of general demographic information to examine the age and gender of the subjects.

Section B of the questionnaire was designed to identify the category of upland recreationist. One of the great virtues of participating in recreational activities in the uplands is the diverse range of activities that can take place there (Kaye and Moxham, 1996). Recreational walking is one such activity which itself is so diverse and dynamic. It can range from a daily stroll with the dog to solo back- packing over a National Trail. Section B of the questionnaire used Kaye and Moxham's (1996) Five Dimensions to differentiate types of walking.

Kaye and Moxham (1996) identified that four clusters of walkers emerged. The largest cluster group comprised of eight types of walking including strolling, ambling, roaming and wandering. Kaye and Moxham (1996) recognised that these types of walks are conventional mainstream recreational activities that are easy, casual and capable of spontaneous participation. At the other end of the scale are five types of walking that had contrasting characteristics and included fell-walking, hill walking and back-packing, all of which were strenuous and challenging activities that required planning and preparation. These types of recreational activities extended into the realm of

outdoor pursuits and were capable of affording the excitement and thrill of adventure and competition, while offering the individual the opportunity for self development and achievement. The space in between these two contrasting clusters was held by two smaller clusters. The first cluster comprised of rambling, striding and trampling, while the other was a more strenuous and challenging cluster that comprised of marching, trekking, trail walking and hiking.

Section C was designed to identify the subject's level of involvement in their upland activity. This section required the subjects to rate their upland activity based upon five variables including difficulty, commitment, planning, reward and type of activity.

Based upon Kay and Moxham's (1996) study, level of involvement was measured by scoring the results of the five variables. The scores ranged from 5 to 25 with those who have low levels of involvement in their activity scoring low scores of 5 to 11. Those who had moderate levels of involvement scoring 12 to 18, while those who have high levels of involvement in their recreational activity scoring 19 to 25.

Section D was designed to identify how the subjects identify themselves as participants of upland recreation. Specifically this section was designed to extract the subject's perceived identity within their activity.

According to Breejen (2007), an experience originates from both the individuals current situation and from the memory of previous situations. Many variables can be used to determine the degree of past experiences that an individual has built up at a given location or at given activity (Kyle, Briker, Graefe and Wickham, 2004 and Kyle, Graefe, Manning, and Bacon, 2003). Section D of the questionnaire comprised of four questions using a seven point Likert scale developed by Breejen (2007) which categorised individuals into three groups ('beginner', 'intermediate' and 'advanced') based on their perceived experience status. It is a reflection of the respondent's perceived ability and involvement in the activity as no standardised measure had been adopted to define the level of experience (Breejen, 2007). By scoring question one and four with a maximum score of 7 and minimum score of 1 and reverse scoring questions two and three the individuals can then be categorised into each of the three groups based upon their overall score (maximum score = 28, minimum score = 4) where the upper and lower four indices are comprised of experienced and beginner respectively (Breejen, 2007).

Section E was developed to identify the motivations of the subjects. This section involved the subjects rating twenty four questions by selecting their reason for participating in their chosen activity. After an extensive review of the literature, a number of motivational factors kept emerging. Eight motivational factors were chosen to form the basis Section E. Three questions were identified to obtain information based each of the eight motivations. The eight motivational factors that were used in this study were Adventure, Physical Exercise, Escape, Social, Nature/Environment, To Learn, Challenge and Reward. The motivations were based on the workings of Ewert and Hollenhorst's (1989) Adventure Recreational Model (ARM), Driver and Tocher's (1977) Recreational Experience Preference Scale, and Todd, Graefe and Mann's (2000) Motivation Scale.

The subjects for Ewert and Hollenhorst's (1989) ARM were high altitude mountaineers and as such not all of the motivations selected for their study were relevant to this study. To make the instrument more relevant to visitors in the Irish uplands the researcher selected six motivations (Escape, Social, Nature/Environment, To Learn, Challenge and Reward) relevant to those seeking leisure and recreation in the Irish uplands. The researcher also edited the response method from Ewert and Hollenhorst's (1989) from a slash across a ten centimetre line to a 5 point Likert scale to provide both the researcher and subjects with greater clarity.

Driver and Tocher (1977) developed the Recreation Experience Preference Scale (REP Scale). The REP Scale suggested that recreation activities are instrumental to attaining certain psychological and physical goals because they are behavioural pursuits. Driver's (1983) REP Scales contained 19 domains and comprised of scales which were shown by hierarchical clustering techniques to be empirically related. Of these domains the researcher used items from two of the domains, 'Physical Fitness' and 'Nature/Environment'.

To measure motivation, the researcher also examined the workings of Kyle, Absher, Hammit and Cavin (2006), Beh and Bruyere (2007), Lagere and Haider (2008), Brehm, Tittlbach and Häußler (2010), Dey and Saxena (2010), and others, from which the workings of Todd, Graefe and Mann (2000) was chosen. Todd *et al.*, (2000) based their study on the expectancy-value theory (motivation is determined by the attractiveness of outcomes and the expectation that participation in an activity will result in desire

outcomes) and chose six motivations accordingly ('Adventure', 'Learn', 'Escape', 'Social', 'Stature' and 'Personal Challenge') from which the researcher selected items in the 'Adventure' and 'Learn' categories.

In order to score the items for Section E of the questionnaire, each response was given a score from 1 (Not at all Important) to 5 (Extremely Important). Each motivational factor was comprised of three questions, therefore each of the six categories will have a minimum score of three and a maximum score of fifteen. The total score of all of the items ranged from eighteen to ninety.

Section F was developed to identify the personality of the subjects. The problem with many of the research questionnaires used to measure personality traits is that they are not designed for field work. When questioning subjects in the field, subjects can be reluctant to fill out long cumbersome questionnaires. To measure the personality profiles of the subjects, this study used Gosling, Rentfrow and Swann's (2003) Ten Item Personality Inventory (TIPI). The TIPI is based on the Big Five personality dimensions but with a ten item inventory it makes it perfectly suited to field studies. According to Gosling *et al.*, (2003), and supported by Ehrhart *et al.*, (2009), the TIPI is a valid tool that can measure personality when time is restricted.

The TIPI is an inventory of questions that has two items representing each pole of the Five Item Personality Inventory (Gosling *et al.*, 2003). The TIPI is a reliable instrument for the measurement of personality traits and has been validated by the Journal of Research in Personality.

Academic peers (Hofmans, *et al.*, 2008; Furnham, 2008, & Ehrhart *et al.*, 2009) have since sought to assess the reliability of the TIPI. When compared with the Big Five Inventory Gosling *et al.*, (2003) found strong convergent correlations were found between each of the five personality traits (Extraversion $r=0.87$, Agreeableness $r=0.70$, Conscientiousness $r=0.75$, Emotional Stability $r=0.81$ and Openness to Experience $r=0.65$). Similarly, when compared with other tools used to measure dimension of the Big Five (NEO-PI-R, $r=0.56$ to 0.68 , and the IPIP, $r=.078$ to 1.00) there was "strong evidence for convergence of validity" (Ehrhart *et al.*, 2009).

The TIPI requires subjects to rate, using a seven point Likert Scale, if they 'Disagree Strongly', 'Agree' or 'Agree Strongly' to ten statements. Scores for each factor will

range from 2 – 14. The TIPI examines the five personality traits of the Big Five Inventory Scale scores namely, Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to Experience. The measurement of the personality traits requires adding the scores for each of the five personality traits (each trait will have two scores, with one reverse score question for each personality trait – note that reverse scoring is used for questions 2, 4, 6, 8 and 10 – see Appendix C).

3.4.3 Instrument Pilot

In order to test the validity of the questionnaire, the researcher conducted a pilot study prior to the commencement of the main survey. This involved using a separate test group outside the one of the sample area, in order to ensure unproblematic use of the research method. The pilot study was conducted in the Galtee Mountains (County Tipperary), along the River Suir (just outside Clonmel, County Tipperary) and with members of Rathgormack Climbing Club (Rathgormack, Co. Waterford). The questionnaires were completed (n=15) by subjects (all of who were aged over eighteen years old) who were involved in one of the six categories of upland recreation, prior to or on return from their activity. The pilot study highlighted a number of small issues which were corrected prior to the commencement of the main study.

3.4.4 Selecting the Research Subject Sample

The procedure adopted by the researcher was stratified random sampling. Stratified random sampling allowed the researcher to study a small selection of the target population enabling the data obtained to be representative of the entire upland recreation population (Pallant, 2010). All subjects were on-site recreational upland visitors. For validity purposes, a convenience sample of those aged over 18 years was chosen on a ‘next to come’ basis. The subjects were either just about to head out for their recreational experience or just returning from their recreational experience. All participants were asked to give their informed consent before filling out the questionnaire.

3.4.5 Quantitative Research

The quantitative phase of this research took place over a five month period from the end of June to the middle of October 2011. This phase of the research was concluded at land-based upland recreation locations in Munster and Leinster in Ireland. These

locations included the Mahon Falls in the Comeragh Mountains (County Waterford), Lough Tay and Glendalough in the Wicklow Mountains (County Wicklow), The Vee in the Knockmealdown Mountains (County Tipperary) and Cronin's Yard and Lisleibane in the MacGillycuddy Reeks (Country Kerry). Due to the small number of mountaineers the researcher surveyed a group of Irish mountaineers in Argentiere in the French Alps.

3.5 Data Collection

Using the stratified random method, the researcher conducted on site questionnaires at a number of upland locations, in the provinces of Leinster and Munster, in Ireland on the basis of Kaye and Moxham's (1996) study. From this stratification, a random sample was selected for surveying. The researcher identified and categorised upland locations in Ireland in consultation with leading experts in the field of mountaineering and hill walking in Ireland.

These locations included Loch Tay (n = 59) and Glendalough (n = 129) in County Wicklow, the Mahon Falls, Comeragh Mountains (n = 69) in County Waterford, The Vee, Knockmealdown Mountains (n = 53) in County Tipperary, Ballykeefe Quarry, County Kilkenny (n= 73), Rathgormack Climbing Club in County Waterford (n= 9), Cronin's Yard and Lisleibane (n= 72) in the MacGillycuddy Reeks in County Kerry and Argentiere (n = 9) in the French Alps (those questioned in the French Alps were Irish Mountaineers). These locations were locations where the researcher would be most likely to locate a greater quantitative of upland recreationists. Photographs taken at these locations can be found in Appendix D.

3.6 Subjects

A total of 567 people were approached to participate in this study. Of which 460 (males; n=268; females: n=192,) completed the questionnaire. A total of 107 (23%) questionnaires were omitted from this study, 5 questionnaires were omitted as they were upland mountain bikers and were not relevant to this study and 102 questionnaires were incomplete.

3.7 Analysis of Data

When all of the locations had been surveyed the questionnaires were checked to make sure that they met the criteria to be entered into SPSS (Statistical Package for the Social

Sciences), before statistical analysis could begin. Any questionnaire which did not meet the criteria was discarded and not included in the data set (n= 107, 23%). Through the process of accumulating the question variables, SPSS was able to gather results based upon the answers given in the completed questionnaires. This enabled the researcher to answer the research questions and objectives with the premise of answering the overall research question.

As the sample size for each recreational activity was different, the researcher used Non Parametric Testing to analyse the data. The results were analysed using a Kruskal-Wallis Test. If the Kruskal-Wallis revealed a statistically significant difference between the groups, a follow up Mann-Whitney U Test was used to identify which groups were different. The relationships between the groups were measured using a Spearman Rho Test. A Crosstabulation was used to examine the percentages of the categories of level of involvement while a Chi-square test was used to “compare the proportion of cases from a sample with hypothesised values” (Pallant, 2011. p. 215).

3.8 Limitations

During the data collection period of this study a number of limitations were noted. These included:

- The responses of the subjects could have been influenced by external influences such as weather, group outings, time restrictions, work commitments and proximity to the locations.
- From consultation with a number of respondent’s onsite, it was suggested that Trekking and Hill Walking should be swapped around with the subjects feeling that Trekking was an easier activity than Hill Walking.
- The sample population was not consistent for all six activity categories with mountaineers been especially illusive onsite in the Irish uplands (n= 23). Because of this a small sample of Irish mountaineers were surveyed onsite in the French Alps (n= 9).

3.9 Conclusion

The data gathered from this study will enable the researcher to suggest recommendations for those in the planning departments who are responsible for the

future of the Irish countryside. It will enable planners to understand who the people are who participate in upland recreation activities and what it is that makes them participate. These recommendations are discussed in the Discussion Chapter and presented at the end of the chapter.

Chapter 4

Results

4.1 Introduction

The aim of this chapter is to present the data gathered for this study. The results chapter is divided into six sections. The first section (Section A) presents the demographic information of the sample population. Section B presents the findings of the respondents activity choices. Section C presents the findings of the respondents personality. Section D presents the findings of the respondents motivations for participating in a land-based recreation activity in the Irish uplands. Section E presents the findings of the respondents Level of Involvement in their chosen activity and Section F presents the findings of the respondents Percieved Identity in their chosen activity.

Section A

4.2 Demographic Information

This section presents the demographic information of those who participated in this study.

4.2.1 Age and Gender of Respondents

A total of 567 individuals participated in this study. A number of incomplete questionnaires had to be omitted from the study (n=107) leaving 460 complete questionnaires that formed the basis of this study. Of the respondents, 58% (n=268) were male and 42% (n=192) were female (Table 4.1).

Table 4.1 Respondents Gender by Frequency and Percentage (%) for the Whole Group (n=460)

| | Frequency | Percent |
|--------|-----------|---------|
| Male | 268 | 58 |
| Female | 192 | 42 |
| Total | 460 | 100 |

Table 4.2 shows the age categories of the respondents.

Table 4.2 Age Group Frequency, Percent by Age (%) for the Whole Group (n=460)

| Years | Frequency | Percent | Cumulative Percent |
|-------|-----------|---------|--------------------|
| 18-25 | 62 | 14 | 14 |
| 26-35 | 129 | 28 | 42 |
| 36-45 | 104 | 23 | 65 |
| 46-55 | 102 | 22 | 87 |
| 56-65 | 47 | 10 | 97 |
| 65+ | 16 | 3 | 100 |
| Total | 460 | 100 | 100 |

The results show that the highest percentage of respondents were in the 26 – 35 years age category accounting for 28% of all respondents. The majority of the respondents fall between the ages of 26 and 55 years (73%). The lowest frequency age group is the over 65 years age group with 3% of the respondents falling in this age category. Eighty seven percent of land-based recreationists in the Irish uplands are aged under 55 years.

Table 4.3 shows the breakdown of age categories when applied to club membership.

Table 4.3 Club Member Frequency, Percentage by Age (%) for Club Members (n=121)

| Years | Club Member | % Club Members |
|-------|-------------|----------------|
| 18-25 | 13 | 27 |
| 26-35 | 38 | 42 |
| 36-45 | 27 | 35 |
| 46-55 | 16 | 19 |
| 56-65 | 20 | 74 |
| 65+ | 7 | 78 |
| Total | 121 | 26 |

Twenty six percent (n=121) of those surveyed are members of clubs or organisations. Seventy six percent of those aged over 56 years are members of clubs or organisations. With 31% of those aged 18 to 55 years being members of clubs or organisations.

Section B

4.3 Activity

The respondents were asked to state which upland land based activity they usually participate in. The respondents were provided with a choice of six activities which were Strolling, Rambling, Hill Walking, Trekking, Climbing and Mountaineering. They were also given a seventh option ‘other’ in which they could state their normal upland recreation activity if it was not on the list. As mentioned in the methodology chapter the seventh option ‘other’ (n= 5) was omitted from this study as they were upland mountain bikers and were not relevant to this study. The information collated from this question is presented in Table 4.4.

The distinction between the respondents ‘Normal’ and ‘Today’s’ activity is due to the design of the questionnaire. Normal Activity data was used in the analysis of the Personality Traits and Perceived Identity of the respondents because the personality questionnaire and the Perceived Identity questions refer to general personality and Perceived Identity. Today’s Activity data was used in the analysis of the Motivation and Level of Involvement of the respondents because the respondents were asked to rate their motivations for participating and their Level of Involvement in the activity that they were engaged in on the day of the study, and not for their normal activity.

Table 4.4 Normal and Today’s Upland Activity, Frequency (n), Percentage (%) and Club Membership (n, %) for the Whole Group (n=460)

| | Normal Upland Activity | | | | | | Today’s Upland Activity | | | | | |
|----------------|------------------------|----|-------------|----|-----------------|----|-------------------------|----|-------------|----|-----------------|-----|
| | n | % | Club Member | | Non Club Member | | n | % | Club Member | | Non Club Member | |
| | | | n | % | n | % | | | n | % | n | % |
| Strolling | 87 | 19 | 3 | 3 | 84 | 97 | 90 | 20 | 8 | 9 | 82 | 81 |
| Rambling | 56 | 12 | 5 | 9 | 51 | 91 | 45 | 10 | 0 | 0 | 45 | 100 |
| Trekking | 51 | 11 | 8 | 16 | 43 | 84 | 34 | 7 | 0 | 0 | 34 | 100 |
| Hill Walking | 206 | 45 | 68 | 33 | 138 | 67 | 191 | 41 | 53 | 28 | 138 | 72 |
| Climbing | 37 | 8 | 23 | 62 | 14 | 38 | 90 | 20 | 57 | 63 | 33 | 37 |
| Mountaineering | 23 | 5 | 14 | 61 | 9 | 39 | 10 | 2 | 3 | 30 | 7 | 70 |

An analysis of the recreationists show that 206 (45%) of the respondents reported that their most frequent Normal Activity in the uplands is Hill Walking. Strolling (n=87,

19%), Rambling (n=56, 12%) and Trekking (n=51, 10.9%) accounted for n=194 (42%) responses with Climbing (n=37, 8%) and Mountaineering (n=23, 5%) proving to be the lowest occurring frequent activities (n= 61, 13%).

When Club/Organisation Membership was compared with the respondents Normal Activity the results show that Climbers (n=23, 62%) and Mountaineers (n=14, 61%) have the highest percentage of Club Membership, while Strollers (n=3, 3%) and Ramblers (n=5, 9%) have the lowest Club Membership for Normal Activity. Sixteen percent (n=8) of Trekkers and 33% of Hill Walkers (n=68) were also Club Members.

Analysis of the collated data shows that Hill Walking is the most frequent activity that the respondents stated that they were engaged in on the day of the study (n=191, 41%). Both Strolling and Climbing had 90 (20%) respondents each, while Mountaineering accounted for 10 respondents or 2% of all respondents.

When Club/Organisation Membership was compared with Today's Activity the results show that Climbers (n=57, 63%) have the highest percentage of Club Membership, while no Ramblers or Trekkers on the day of the survey were Club Members. Nine percent (n=8) of Strollers, 28% (n=53) of Hill Walkers and 30% (n=3) of Mountaineers were also Club Members.

Today's activity appears to reflect Normal Activity for the majority of the respondents. Differences in activities occurred for only 112 (20%) respondents; Rambling (n=56, +11), Trekking (n= 51, +17) , Hill Walking (n= 206, + 15), Mountaineering (n= 23, +13), Climbing (n=90, +53) and Strolling (n = 87, -3).

Section C

4.4 Personality

This section examines the personality of the respondents and is based on the Five Factor Model of Personality utilising Gosling *et al's.*, (2003) Ten Item Personality Inventory (TIPI). The normative data for Gosling *et al's.*, (2003) TIPI is presented in Table 4.5.

Table: 4.5 Normative Data (mean, range, $\pm 1SD$) for Gosling *et al's.*, (2003) Ten-Item Personality Inventory.

| | Mean | Range | Std. Deviation |
|------------------------|-------|-------|----------------|
| Openness to Experience | 10.76 | 2-14 | 2.14 |
| Conscientiousness | 10.80 | 4-14 | 2.62 |
| Extraversion | 8.88 | 2-14 | 2.90 |
| Agreeableness | 10.46 | 2-14 | 2.22 |
| Neuroticism | 9.66 | 3-14 | 2.84 |

4.4.1 Personality Traits of Upland Recreationists

The results from the personality testing are presented in Table 4.5 and Figure 4.1. The total possible score for each trait ranges from 2 - 14.

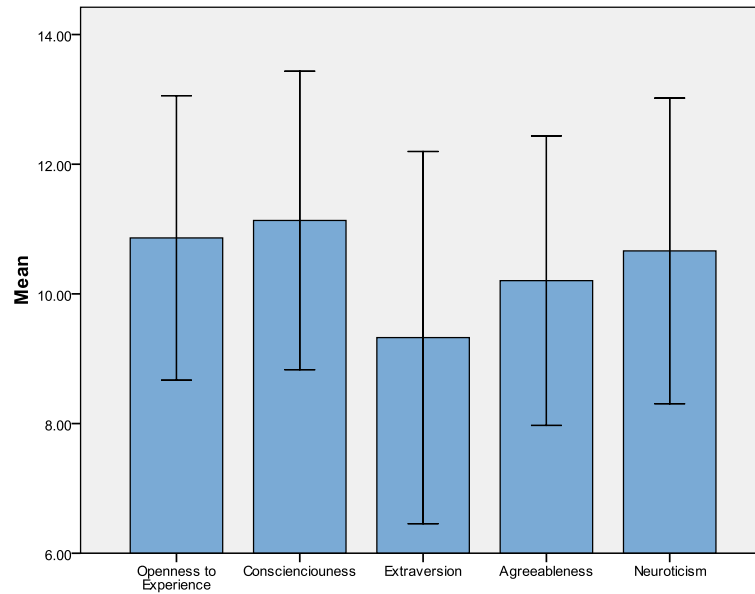
Table 4.6 Personality Profile (mean $\pm SD$) of Land Based Recreationists in the Irish Uplands according to Normal Activity (n= 460)

| | Mean | Range | Std. Deviation |
|------------------------|-------|-------|----------------|
| Openness to Experience | 10.86 | 2-14 | 2.20 |
| Conscientiousness | 11.13 | 4-14 | 2.30 |
| Extraversion | 9.33 | 2-14 | 2.87 |
| Agreeableness | 10.20 | 2-14 | 2.23 |
| Neuroticism | 10.66 | 3-14 | 2.36 |

Table 4.5 shows that the personality trait Conscientiousness scores the highest mean score for the land based recreationists in the Irish Uplands (mean of 11.13). While the lowest personality score is for the trait Extraversion, the mean score of 9.33 shows that the land based recreationists in the Irish Uplands have Extravert personality traits. Any

score under 7.00 would result in the upland recreationists having introverted personality traits (Goslin *et al*, 2003). These results are illustrated in Figure 4.1.

Figure 4.1 Personality Profile (mean \pm SD) of Land Based Recreationists in the Irish Uplands according to Normal Activity (n= 460)



4.4.2 Personality Trait and Activity Choice

Table 4.6 shows the mean, standard deviation and number of respondents for each of the six upland activities. The total possible score ranges from 2 to 14.

Table 4.7 Individual Personality Traits (Mean, range \pm SD) for Normal Activity

| | Strolling (n= 87) | Rambling (n=56) | Trekking (n=51) | Hill Walking (n=206) | Climbing (n=37) | Mountaineering (n=23) | Sig. Diff | Correlation Coefficient |
|-----------------------------------|----------------------|--------------------|--------------------|----------------------------|--------------------|--------------------------|-----------|----------------------------|
| Openness to Experience | | | | | | | p= 0.440 | 0.099 |
| Mean | 10.51 | 10.61 | 11.00 | 10.94 | 11.14 | 11.39 | | |
| Std. Dev. | 2.25 | 2.38 | 2.42 | 2.13 | 1.87 | 2.02 | | |
| Range | 2-14 | 2-14 | 4-14 | 6-14 | 7-14 | 8-14 | | |
| Conscientiousness | | | | | | | p= 0.579 | 0.015 |
| Mean | 10.93 | 11.50 | 10.90 | 11.20 | 10.97 | 11.17 | | |
| Std. Dev. | 2.29 | 1.86 | 2.56 | 2.24 | 2.13 | 3.39 | | |
| Range | 6-14 | 7-14 | 4-14 | 5-14 | 5-14 | 4-14 | | |
| Extraversion | | | | | | | p= 0.609 | 0.067 |
| Mean | 9.23 | 9.16 | 9.55 | 9.25 | 9.65 | 10.17 | | |
| Std. Dev. | 2.30 | 2.98 | 2.63 | 2.79 | 3.15 | 2.95 | | |
| Range | 2-14 | 2-14 | 2-14 | 3-14 | 4-14 | 5-14 | | |
| Agreeableness | | | | | | | p= 0.519 | -0.051 |
| Mean | 10.29 | 10.27 | 9.82 | 10.35 | 9.89 | 9.91 | | |
| Std. Dev. | 2.13 | 1.93 | 2.25 | 2.39 | 1.87 | 2.39 | | |
| Range | 5-14 | 6-14 | 5-14 | 2-14 | 5-14 | 5-14 | | |
| Neuroticism | | | | | | | p= 0.485 | -0.005 |
| Mean | 10.66 | 10.57 | 10.14 | 10.74 | 10.68 | 11.35 | | |
| Std. Dev. | 2.41 | 2.47 | 2.51 | 2.31 | 2.20 | 2.33 | | |
| Range | 4-14 | 4-14 | 3-14 | 5-14 | 7-14 | 8-14 | | |

The relationship between personality traits and level of recreation (defined by activity choice) was examined using a Spearman Rho Correlation. As can be seen from table 4.6 no relationship was found between any of the personality traits and the level of recreation.

Statistical analysis, using a Kruskal-Wallis Test, showed no differences in the personality traits between recreationists ($p < 0.05$).

4.4.3 Personality Traits According to Gender and Club Membership

This section examines Personality Traits by Gender (section 4.4.3.1) and Club Membership (4.4.3.2).

4.4.3.1 Personality Traits and Gender

Results from a Mann-Whitney U Test between the genders of the respondents for each of the personality traits are presented in Table 4.7.

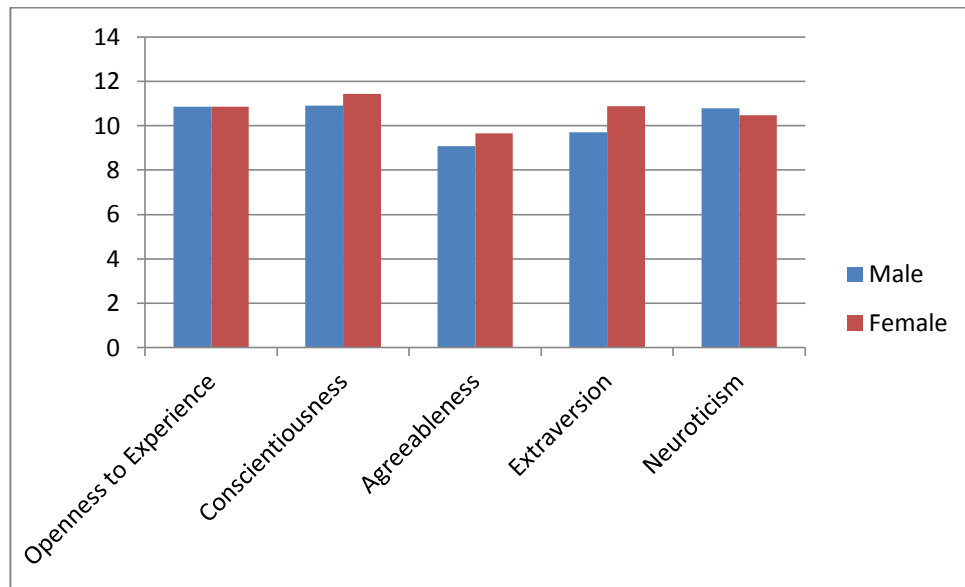
Table 4.8 Personality Traits (mean \pm SD) analysed by gender for Whole Group (n=460)

| | Gender | N | Mean | Std. Deviation | Sig. |
|------------------------|--------|-----|-------|----------------|------------|
| Openness to Experience | Male | 268 | 10.87 | 2.30 | |
| | Female | 192 | 10.86 | 2.05 | |
| Conscientiousness | Male | 268 | 10.91 | 2.36 | * |
| | Female | 192 | 11.44 | 2.18 | (p= 0.013) |
| Extraversion | Male | 268 | 9.09 | 2.91 | * |
| | Female | 192 | 9.65 | 2.79 | (p= 0.044) |
| Agreeableness | Male | 268 | 9.72 | 2.30 | * |
| | Female | 192 | 10.89 | 1.95 | (p= 0.000) |
| Neuroticism | Male | 268 | 10.79 | 2.24 | |
| | Female | 192 | 10.48 | 2.51 | |

* Significant at $p \leq 0.05$

Statistical analysis shows that females scored significantly greater scores for the personality traits Conscientiousness, Extraversion and Agreeableness ($p \leq 0.05$). Openness to Experience and Neuroticism reported no significant difference ($p > 0.05$). These results are illustrated in Figure 4.2.

Figure 4.2 Mean Personality Traits by Gender for the Whole Group (n=460)



4.4.3.2 Personality Traits and Club Membership

Table 4.8 presents the findings from a Mann Whitney U test, comparing the personality traits by club membership.

Table 4.9 Personality Traits (mean \pm SD) analysed by Club Membership for the whole group (n=460)

| | Club Member (n=121) | Non Club Member (n=339) | Sig. |
|-------------------------------|------------------------|----------------------------|------------|
| Openness to Experience | | | |
| Mean | 11.18 | 10.75 | |
| Std. Dev. | 2.00 | 2.25 | |
| Conscientiousness | | | |
| Mean | 11.33 | 11.06 | |
| Std. Dev. | 2.49 | 2.23 | |
| Extraversion | | | |
| Mean | 9.96 | 9.10 | * |
| Std. Dev. | 2.82 | 2.86 | (p = 0.05) |
| Agreeableness | | | |
| Mean | 10.47 | 10.42 | |
| Std. Dev. | 2.20 | 2.34 | |
| Neuroticism | | | |
| Mean | 10.73 | 10.64 | |
| Std. Dev. | 2.25 | 2.39 | |

* Significant at $p \leq 0.05$

With the exception of Extraversion ($p = 0.05$), statistical analysis found no difference between the personality traits (Openness to Experience, Conscientiousness, Agreeableness and Neuroticism) of Club Members and Non Club Members ($p > 0.05$). Club Members scored significantly higher for Extraversion than Non-Club Members.

Section D

4.5 Motivation

This section examines the Total Motivation and each motivational factor (Adventure, Physical Activity, Escape, Social, Nature/Environment, to Learn, Challenge and Reward) of the respondents for engaging in Today's chosen upland recreation.

4.5.1 Total Motivation

Total Motivation (TM) is computed by adding the scores for each of the 8 motivational factors and the total possible range is from 24 – 120 for the whole group (n=460)

4.5.2 Total Motivation, Upland Activity, Club Membership and Gender

Table 4.9 presents the findings of Total Motivation when compared with activity, club membership and gender. A Kruskal-Wallis Test was used to compare the Total Motivation of the upland recreationist by activity, while a Mann-Whitney U Test was used to compare Total Motivation with club membership and gender. These results are illustrated in Figure 4.3 and 4.4.

Table 4.10 Total Motivation (range, mean \pm SD) by Upland Activity, Club Membership and Gender for the Whole Group (n=460)

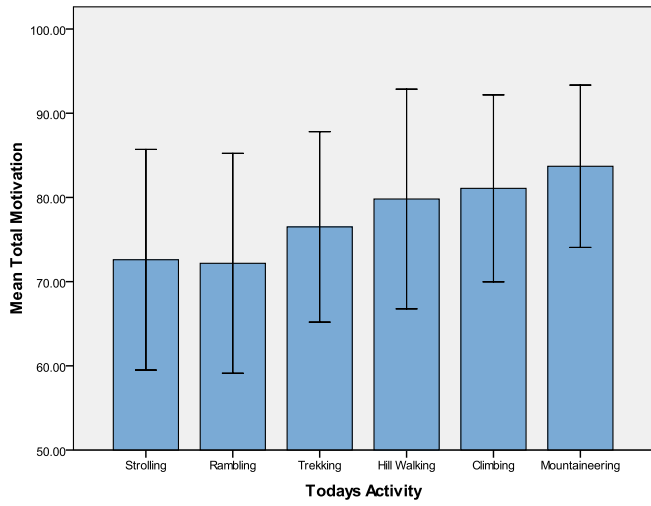
| | N | Actual Range | Mean | Std. Dev | Sig. |
|------------------------|-----|--------------|-------|----------|------|
| Activity | | | | | |
| Strolling | 90 | 37-108 | 72.60 | 13.10 | * |
| Rambling | 45 | 47-107 | 72.18 | 13.06 | * |
| Trekking | 34 | 57-100 | 76.50 | 11.31 | |
| Hill Walking | 191 | 39-108 | 79.81 | 13.04 | * |
| Climbing | 90 | 58-104 | 81.08 | 11.10 | * |
| Mountaineering | 10 | 71-102 | 83.70 | 9.64 | |
| Total | 460 | 37-108 | 77.74 | 12.96 | |
| Club Membership | | | | | |
| Members | 121 | 43-108 | 82.49 | 12.32 | * |
| Non Members | 339 | 37-107 | 76.05 | 12.78 | |
| Gender | | | | | |
| Males | 268 | 37-108 | 77.03 | 13.32 | |
| Females | 192 | 43-108 | 78.74 | 12.42 | |

* Significant at $p \leq 0.05$

Table 4.9 shows that the Total Motivation scores for strolling is significantly less than that for Hill Walking ($p=0.000$) and Climbing ($p=0.000$). Total Motivation for

Rambling is also significantly less than that for Hill Walking ($p=0.000$) and Rambling ($p=0.004$). Total Motivation for Hill Walking is significantly greater than for Strolling ($p=0.000$) and Rambling ($p=0.004$). Finally, Total Motivation for Climbing is significantly greater than for Strolling ($p=0.000$) and Rambling ($p=0.002$). The results show that Mountaineering scores a higher mean Total Motivation than all of the other activities, but statistical analysis found Mountaineering to be not significantly different to any of the other activities. This “non significant” result may be explained by low numbers in the mountaineering group and may be a type II error (Pallant, 2010).

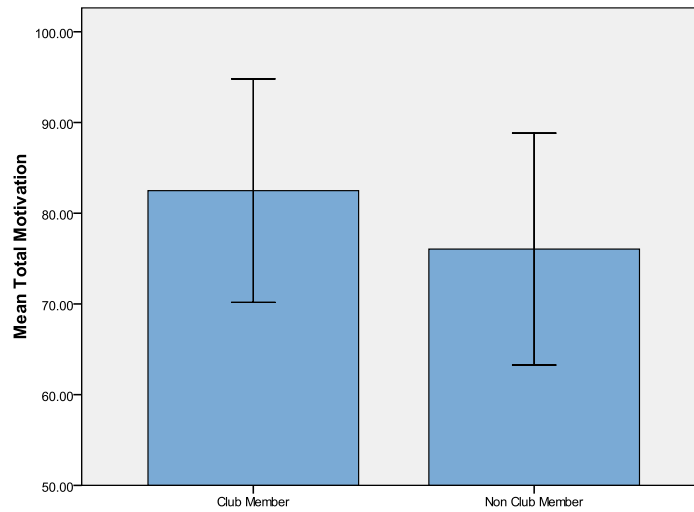
Figure 4.3 Total Motivation (mean $\pm 1SD$) and Upland Activity for the Whole Group (n=460)



A Spearman Rho Correlation has shown that a small, positive, relationship occurs between Total Motivation and Upland Activity ($r=.239$, $p=0.000$) i.e. as the difficulty level of the activity increased so did the mean score for Total Motivation.

Total Motivation was significantly greater among Club Members than Non-Club Members ($p= 0.00$). These results are illustrated in Figure 4.4.

Figure 4.4 Total Motivation (mean \pm 1SD) and Club Membership for the Whole Group (n=460)



A Mann-Whitney U Test found that there was no significant difference between Total Motivation and the Gender of the respondents ($p=0.175$).

4.5.3 Motivational Factors

The total possible score for each of the motivational factors is fifteen and the actual scores for each of the eight motivation factors (Adventure, Physical Activity, Escape, Social, Nature/Environment, to Learn, Challenge and Reward), ranged from three to fifteen. The results are presented in Table 4.10 and illustrated in Figure 4.5.

Table 4.11 Motivational Factors (range, mean \pm SD) for the Whole Group (n=460)

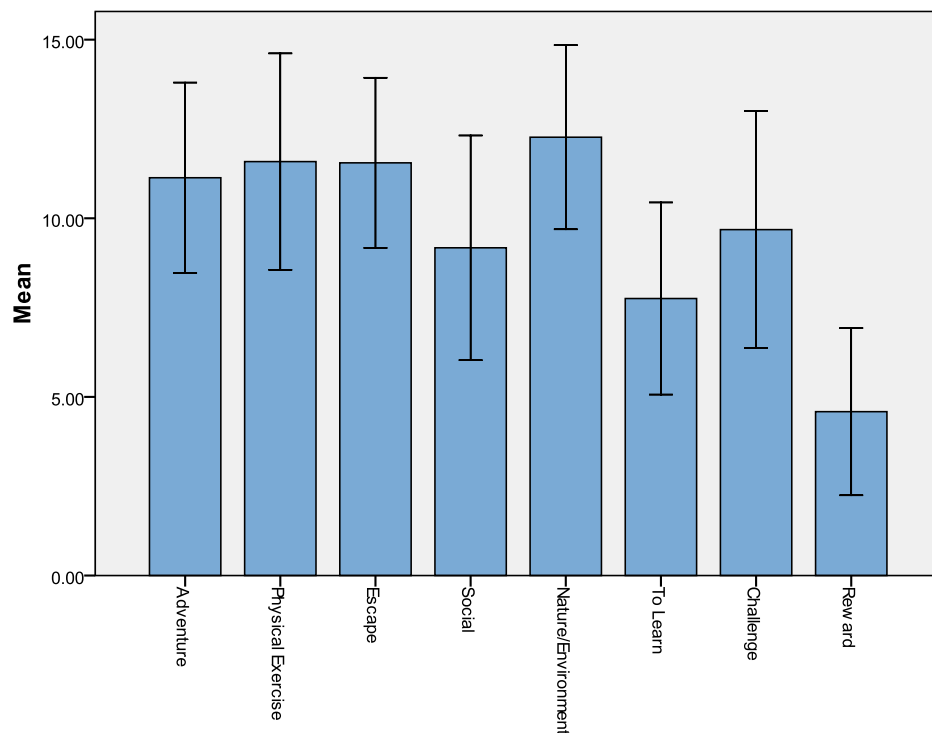
| Motivation | Mean | Std. Deviation | Range |
|--------------------|--------|----------------|-------|
| Adventure | 11.13* | 2.66 | 3-15 |
| Physical Exercise | 11.59* | 3.03 | 3-15 |
| Escape | 11.55* | 2.38 | 3-15 |
| Social | 9.17* | 3.14 | 3-15 |
| Nature/Environment | 12.27* | 2.58 | 3-15 |
| To Learn | 7.75* | 2.69 | 3-15 |
| Challenge | 9.68* | 3.32 | 3-15 |
| Reward | 4.59* | 2.34 | 3-15 |

* Significant at $p \leq 0.05$

The motivational factor ‘Nature/Environment’ (12.27) is the greatest motivational factor for participation in upland recreation, with the motivational factor Reward being the least important factor (4.59).

A Kruskal-Wallis test revealed that a statistically significant difference between the groups was present. A follow up Mann-Whitney U test was used to identify which groups were different. The Mann-Whitney U test showed that no significant difference was found between the motivational factors Physical Exercise and Escape ($p=0.441$). The motivational factor Adventure was significantly lower than Physical Exercise ($p=0.001$) and Escape ($p=0.012$). The motivational factor Social was significantly lower than Challenge ($p=0.007$). All other differences between motivational factors were significant at a p value of 0.000.

Figure 4.5 Total Motivation (mean \pm 1SD) of each Motivational Factor for the Whole Group (n=460)



4.5.4 Motivational Factors and Upland Activity

This section of results presents the findings of the eight individual motivational factors by Today’s Upland Activity. The results were analysed using a Kruskal-Wallis Test. If

the Kruskal-Wallis revealed a statistically significant difference between the groups, a follow up Mann-Whitney U Test was used to identify which groups were different. The relationships between the groups were measured using a Spearman Rho Test. The range score for each motivational factor is from three to fifteen inclusive, for the whole group (n=460).

Table 4.12 Motivational Factors (Mean \pm 1SD) According to each Upland Activity

| | Strolling (n=90) | | | Rambling (n=45) | | | Trekking (n=34) | | | Hill Walking (n=191) | | | Climbing (n=90) | | | Mountaineering (n=10) | | |
|------------------------|---------------------|------|-------|--------------------|------|-------|--------------------|------|-------|-------------------------|------|-------|--------------------|------|-------|--------------------------|------|-------|
| | \bar{x} | SD | range | \bar{x} | SD | range | \bar{x} | SD | range | \bar{x} | SD | range | \bar{x} | SD | range | \bar{x} | SD | range |
| Adventure | 10.06 *1 | 2.86 | 3-15 | 10.89 *2 | 2.13 | 3-14 | 11.06 | 2.83 | 5-15 | 11.27 *3 | 2.70 | 4-15 | 12.28 | 2.03 | 8-15 | 12.80 | 1.32 | 11-15 |
| Physical Exercise | 10.48 *4 | 3.34 | 3-15 | 10.89 *4 | 3.16 | 4-15 | 10.97 | 3.56 | 3-15 | 12.36 | 2.78 | 3-15 | 11.70 | 2.55 | 6-15 | 11.10 | 2.33 | 6-15 |
| Escape | 12.02 *5 | 2.20 | 3-15 | 11.84 *5 | 2.48 | 6-15 | 11.50 | 2.27 | 5-15 | 11.82 *5 | 2.40 | 3-15 | 10.50 | 2.34 | 4-15 | 10.60 | 2.17 | 8-14 |
| Social | 8.37 *6 | 3.27 | 3-15 | 8.02 *6 | 3.44 | 3-15 | 8.82 | 2.97 | 3-15 | 9.54 | 3.08 | 3-15 | 9.80 | 2.80 | 3-15 | 10.20 | 2.97 | 6-15 |
| Nature/ Environment | 12.93 *5 | 2.20 | 3-15 | 12.84 *5 | 2.11 | 7-15 | 13.27 *5 | 1.48 | 11-15 | 12.42 *5 | 2.55 | 3-15 | 10.52 | 2.83 | 3-15 | 12.50 | 1.58 | 10-15 |
| To Learn | 7.00 *2 | 2.60 | 3-15 | 6.80 *2 | 2.36 | 3-12 | 7.38 *2 | 2.46 | 4-12 | 7.76 *2 | 2.86 | 3-15 | 8.93 | 2.17 | 3-13 | 9.40 | 2.32 | 4-12 |
| Challenge | 7.56 *1 | 3.19 | 3-15 | 7.98 *2 | 2.93 | 3-14 | 9.00 *2 | 2.90 | 4-15 | 9.94 *2 | 3.08 | 3-15 | 12.14 | 2.32 | 5-15 | 11.80 | 2.62 | 7-15 |
| Reward | 4.19 *2 | 2.49 | 3-15 | 3.71 *2 | 1.85 | 3-14 | 4.29 | 2.43 | 3-13 | 4.71 | 2.45 | 3-12 | 5.20 | 2.31 | 3-12 | 5.30 | 3.09 | 3-12 |

*1 = Sig. < Hill Walking, Climbing and Mountaineering ($p \leq 0.05$)

*2 = Sig. < Climbing and Mountaineering ($p \leq 0.05$)

*3 = Sig. < Climbing ($p \leq 0.05$)

*4 = Sig. < Hill Walking ($p \leq 0.05$)

*5 = Sig. > Climbing ($p \leq 0.05$)

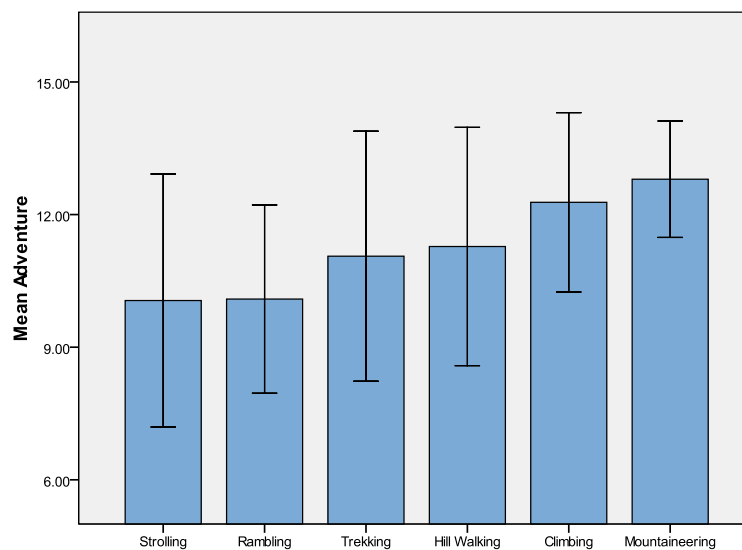
*6 = Sig. < Hill Walking and Climbing ($p \leq 0.05$)

4.5.4.1 Motivational Factor “Adventure” and Upland Activity

The results for the motivational factor Adventure when compared with the upland activities are presented in Table 4.11 and illustrated in Figure 4.6.

Results from a Kruskal-Wallis Test revealed that a significant difference between the motivational factor Adventure and the upland activities was present ($p=0.000$). Further analysis using a number of Mann-Whitney U tests has found that the mean value for Strolling is significantly less than that for Hill Walking ($p=0.003$), Climbing ($p=0.000$) and Mountaineering ($p=0.003$). Rambling is significantly less than Climbing ($p=0.000$) and Mountaineering ($p=0.030$). Trekking shows no significant difference to any activity ($p=0.554$). Hill Walking is significantly greater than Strolling ($p=0.003$) and less than Climbing ($p=0.028$). Climbing is significantly greater than Strolling ($p=0.000$), Rambling ($p=0.000$) and Hill Walking ($p=0.028$) while Mountaineering is significantly greater than Strolling ($p=0.003$) and Rambling ($p=0.030$). No significant difference ($p > 0.05$) was found between Trekking and Mountaineering which may be as a result of a type II error as there are low numbers in both groups.

Figure 4.6 The Motivational Factor ‘Adventure’ (mean \pm 1SD) for each Upland Activity for the Whole Group (n=460)



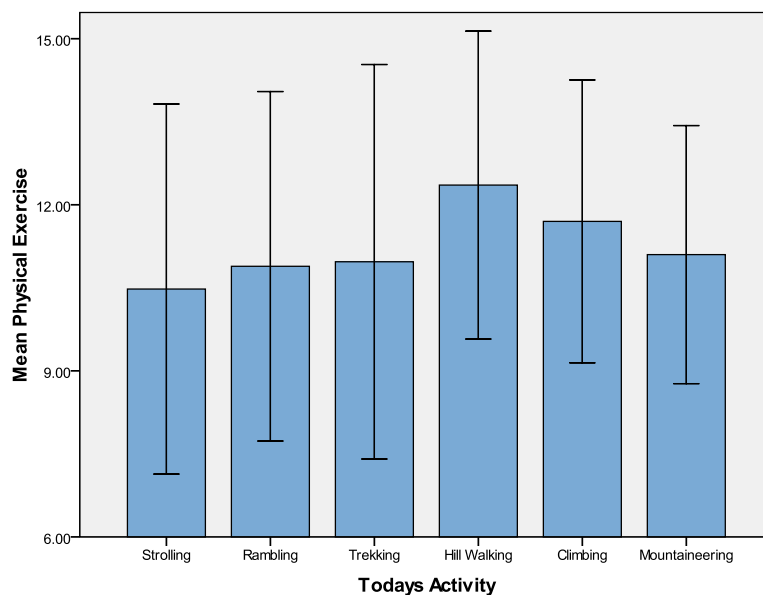
A small positive trend emerged between the motivational factor Adventure and the difficulty level of the activity (Spearman Rho; $r=0.285$, $p=0.00$) which would indicate that adventure became more of a motivating factor the more difficult the activity. The motivational factor Adventure is particularly important for Climbers and Mountaineers who scored 12.23 and 12.80 respectively, out of a maximum mean score of 15.

4.5.4.2 Motivational Factor “Physical Exercise” and Upland Activity

The results for the motivational factor Physical Exercise when compared with the upland activities are presented in Table 4.11 and illustrated in Figure 4.7.

Results from a Kruskal-Wallis Test revealed that a significant difference between the motivational factor Physical Exercise and the upland activities was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that for the motivational factor Physical Exercise, Hill Walking is significantly greater than Strolling ($p=0.000$) and Rambling ($p=0.034$). No other differences were found ($p > 0.05$).

Figure 4.7 The Motivational Factor ‘Physical Exercise’ (mean \pm 1SD) by Upland Activities for the Whole Group (n=460)



The motivational factor Physical Exercise has the greatest motivational importance for Hill Walkers (12.35), while the activity that has the lowest motivational importance for

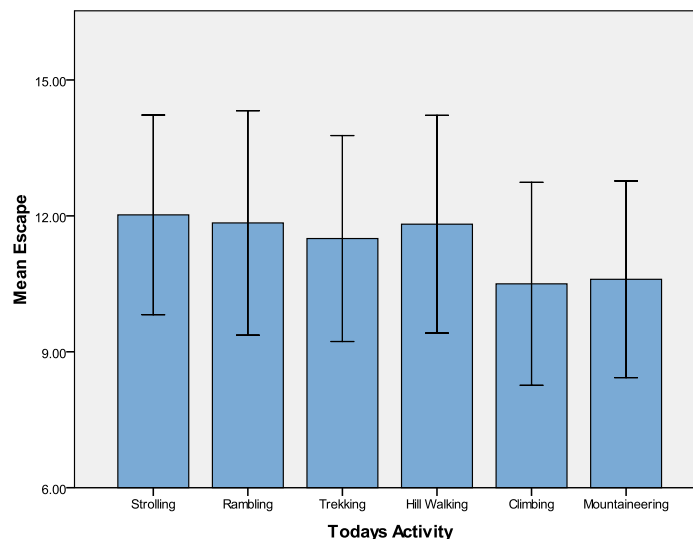
Physical Exercise is Strolling (10.49). As all activities have a mean score of over 10.48 (maximum score = 15) this indicates that Physical Exercise is an important motivational factor for all the respondents. A Spearman Rho Correlation test found that a significant ($p=.042$) but very small positive relationship ($r=.095$) is evident.

4.5.4.3 Motivational Factor “Escape” and Upland Activity

The results for the motivational factor Escape when compared with the upland activities are presented in Table 4.11 and illustrated in Figure 4.8.

Results from a Kruskal-Wallis Test revealed that a significant difference between the motivational factor Escape and the upland activities was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that for the motivational factor Escape, Climbing is significantly lower than Strolling ($p=0.000$), Rambling ($p=0.020$) and Hill Walking ($p=0.000$).

Figure 4.8 The Motivational Factor ‘Escape’ (mean \pm 1SD) and the Upland Activities for the Whole Group (n=460)



A Spearman Rho Correlation test shows that a small, significant ($p=.000$), negative trend emerges ($r= -0.209$) from the results. This indicates that the importance of the motivational factor Escape decreases as the difficulty level of the activity increases. The mean scores of the activities show that the motivational factor Escape has the greatest importance for those who are in the uplands for the purpose of going for a stroll (12.02). The motivational factor Escape had the lowest importance among the climbers and

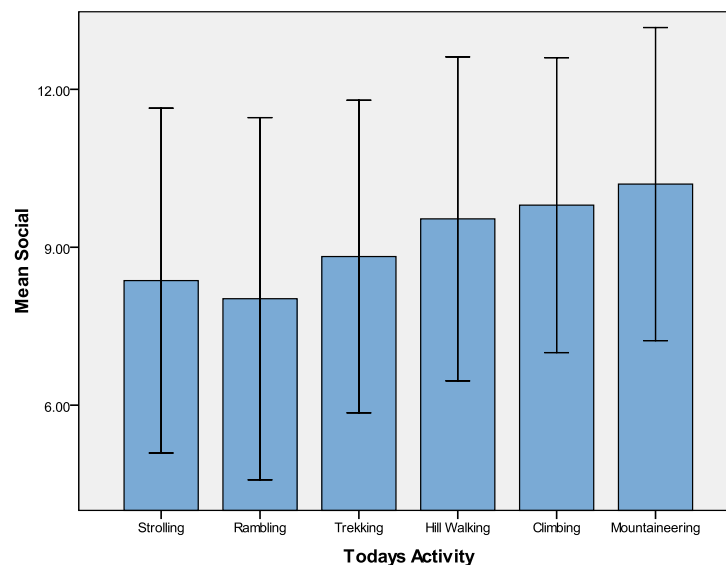
mountaineers (10.50 and 10.60 respectively). As all of the mean scores for Escape are high, this suggests that the motivational factor Escape is important for all upland recreationists.

4.5.4.4 Motivational Factor “Social” and Upland Activity

The results for the motivational factor Social when compared with the upland activities are presented in Table 4.11 and illustrated in Figure 4.9.

Results from a Kruskal-Wallis Test revealed that a significant difference between the motivational factor Social and the upland activities was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that for the motivational factor Social, Strolling is significantly less than Hill Walking ($p=0.037$) and Climbing ($p=0.024$). Rambling is also significantly less than Hill Walking ($p=0.038$) and Climbing ($p=0.022$). No other differences were found ($p > 0.05$). The mean score for Mountaineering (10.20) is greater than that of Climbing (9.80) but only Climbing is significantly different to the other activities. This suggests that a Type II error has occurred due to the small number of mountaineers in the study.

Figure 4.9 The Motivational Factor ‘Social’ (mean \pm 1SD) and the Upland Activities for the Whole Group (n=460)



The motivational factor Social has the greatest importance for Mountaineers (10.20) and the least importance for Ramblers (8.02) with the remaining four upland activities

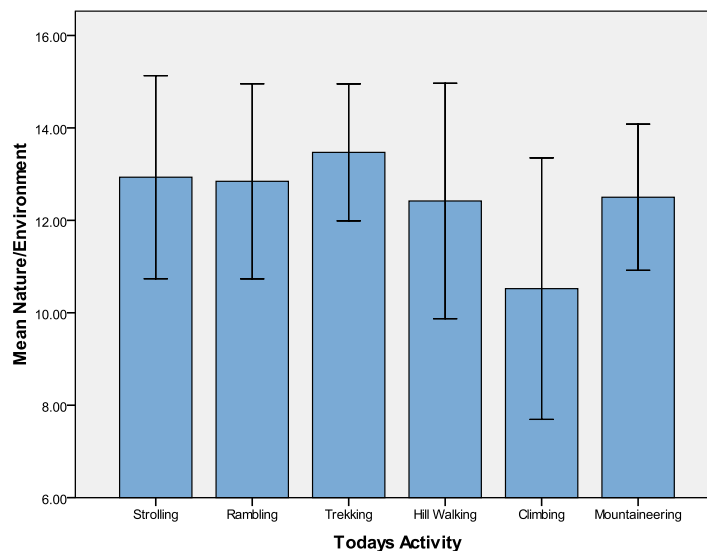
scoring between 8.37 (Strolling) and 9.80 (Climbing). A Spearman Rho Correlation showed that a small ($r=0.161$), significant ($p = 0.001$) positive trend emerges.

4.5.4.5 Motivational Factor “Nature/Environment” and Upland Activity

The results for the motivational factor Nature/Environment are presented in Table 4.11 and illustrated in Figure 4.10.

Results from a Kruskal-Wallis Test revealed that a significant difference between the motivational factor Social and the upland activities was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that for the motivational factor Nature/Environment, Climbing scores significantly less than Strolling ($p=0.000$), Rambling ($p=0.000$), Hill Walking ($p=0.000$) and Trekking ($p=0.000$). The only activity that climbing is not different from is Mountaineering ($p=0.142$), which indicates that a Type II error has occurred. No other differences were found ($p > 0.05$)

Figure 4.10 The Motivational Factor ‘Nature/Environment’ (mean \pm 1SD) and the Upland Activities for the Whole Group ($n=460$)



A Spearman Rho Correlation has shown that a small, significant ($p= .000$) negative ($r= -0.235$) trend is present. Trekking scored the greatest importance for the motivational factor ‘Nature/Environment’ (13.47). The activity that has the lowest importance for the

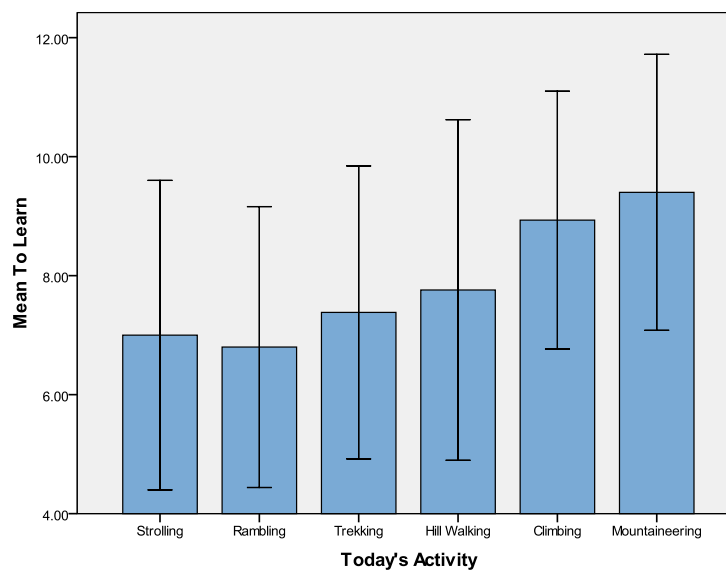
motivational factor Nature/Environment is Climbing (10.52), with the remaining upland activities scoring between 12.42 (Hill Walking) and 12.93 (Strolling).

4.5.4.6 Motivational Factor “to Learn” and Upland Activity

The results for the motivational factor to Learn are presented in Table 4.11 and illustrated in Figure 4.11.

Results from a Kruskal-Wallis Test revealed that a significant difference between the motivational factor Social and the upland activities was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that for the motivational factor To Learn, Climbing is significantly greater than Strolling ($p=0.000$), Rambling ($p=0.000$), Trekking ($p=0.038$) and Hill Walking ($p=0.006$). The results show that Mountaineering is not significantly greater than Climbing ($p=0.995$), as the mean score for Mountaineering (9.40) is greater than that of Climbing (8.93), the results suggest that a Type II error has occurred and that Mountaineering is indeed significantly greater than Strolling, Rambling, Trekking and Hill Walking.

Figure 4.11 The Motivational Factor ‘To Learn’ (mean \pm 1SD) and the Upland Activities for the Whole Group (n=460)



The motivational factor ‘to Learn’ has the greatest importance for the upland activity Mountaineering (9.40) while Rambling scored the least importance (6.80). Rambling,

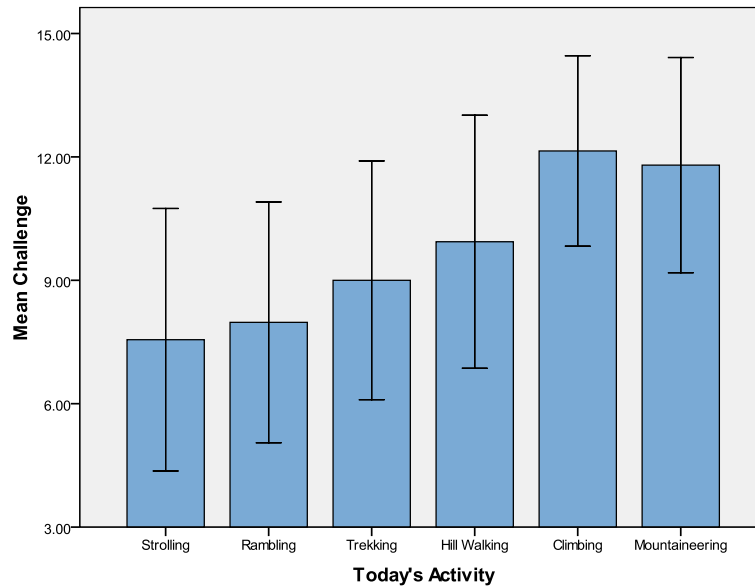
Trekking and Hill Walking scored 6.80, 7.38 and 7.76 respectively, with Climbing scoring higher at 8.93 (Table 4.11 and Figure 4.11). A Spearman Rho Correlation has shown that a small, significant ($p=0.000$), positive trend ($r=0.265$) exists.

4.5.4.7 Motivational Factor “Challenge” and Upland Activity

The results for the motivational factor Challenge are presented in Table 4.11 and illustrated in Figure 4.12.

Results from a Kruskal-Wallis Test revealed that a significant difference between the motivational factor Challenge and the upland activities was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that for the motivational factor Social, Climbing is significantly more challenging ($p=0.000$) than all of the land based upland activities except Mountaineering ($p=0.999$). Strolling is significantly less challenging than Hill Walking ($p=0.000$), Climbing ($p=0.000$) and Mountaineering ($p=0.000$). Rambling is significantly less challenging than Climbing ($p=0.000$) and Mountaineering ($p=0.003$). Trekking is significantly less challenging than Climbing ($p=0.00$) and Mountaineering ($p=0.000$). Hill Walking is significantly less challenging than Climbing but a significantly greater challenge than Strolling ($p=0.000$), and Mountaineering is a significantly greater challenge than Strolling ($p=0.000$), Rambling ($p=0.003$), Trekking ($p=0.000$) and Hill Walking ($p=0.000$).

Figure 4.12 The Motivational Factor ‘Challenge’ (mean \pm 1SD) and the Upland Activities for the Whole Group (n=460)



The activity that has the greatest importance for the motivational factor Challenge is Climbing (12.14), with Mountaineering scoring slightly lower (11.80). The upland activity Strolling has the least importance for the motivational factor Challenge (7.56). The importance of the motivational factor Challenge increases as the difficulty level of the activity increases until it peaks at climbing (12.14). A Spearman Rho Correlation test has shown that a significant, ($p=0.000$) medium strength, positive trend ($r= 0.442$) for the motivational factor Challenge has emerged.

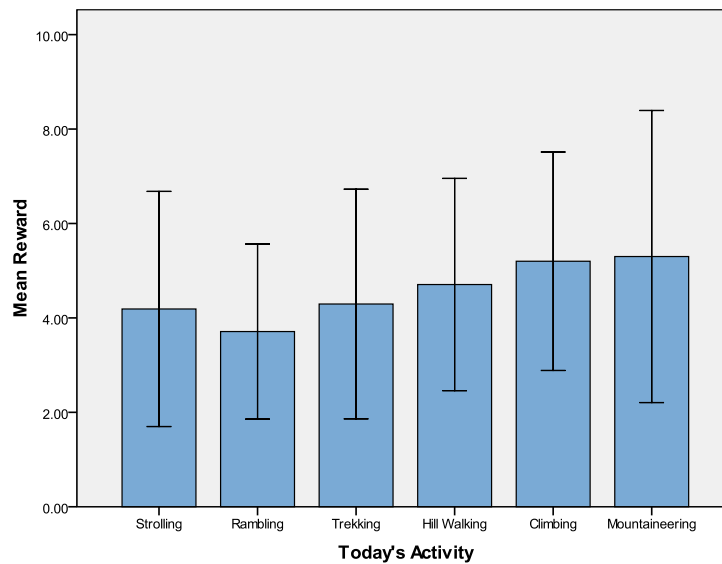
4.5.4.8 Motivational Factor “Reward” and Upland Activity

The results for the motivational factor Reward are presented in Table 4.11 and illustrated in Figure 4.13.

Results from a Kruskal-Wallis Test revealed that a significant difference between the motivational factor Reward and the upland activities was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that for the motivational factor Reward, Climbing is significantly greater than that of both Strolling ($p=0.040$) and Rambling ($p=0.006$). No other differences were found ($p > 0.05$).

While Mountaineering (5.30) scored a higher mean for Reward, than Climbing (5.20) no differences ($p>0.05$) were found between Mountaineering and the other activities. The results suggest that a Type II error has occurred.

Figure 4.13 The Motivational Factor ‘Reward’ (mean \pm 1SD) and the Upland Activities for the Whole Group (n=460)



The low mean scores show that Reward is not a major contributing factor that motivates individuals to participate in land based recreation in the Irish uplands. The activity that has the lowest motivational importance for Reward is Rambling (3.71), while Mountaineering and Climbing have the greatest importance (5.20 and 5.30 respectively). A Spearman Rho Correlation has shown that a significant ($p=0.000$), small, positive trend ($r=0.204$) emerged. This shows that as the difficulty level of the activity increased, the importance of the motivational factor Reward also increases.

4.5.5 Motivation and Club Membership

Analysis on the Motivational Factors and Club Membership was conducted. These results are presented in Table 4.12 and illustrated in Figure 4.14.

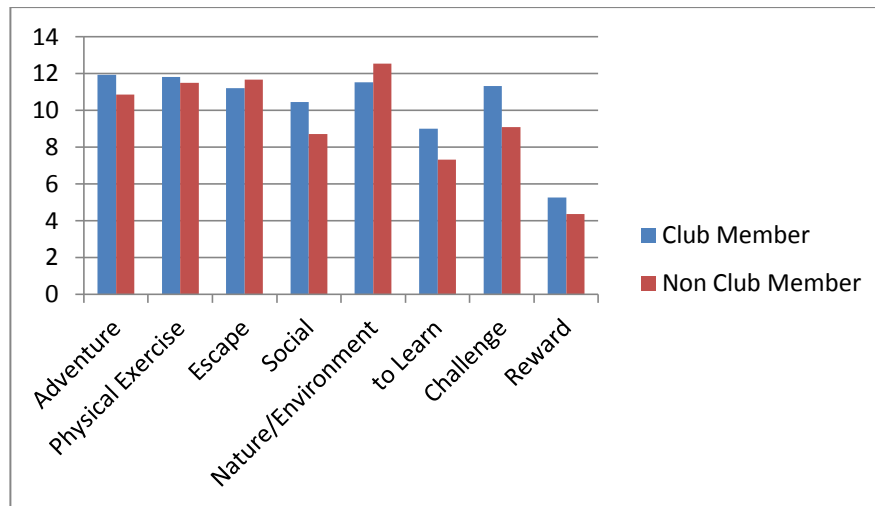
Table 4.13 Motivational Factors of Club Members and Non Club Members (mean, \pm 1SD) for the Whole Group (n=460)

| Motivation | Mean | Std. Dev | Sig. |
|---------------------------|-------|----------|-----------|
| Adventure | | | |
| Club Member | 11.92 | 2.20 | (p=0.000) |
| Non Club Member | 10.86 | 2.76 | |
| Physical Exercise | | | |
| Club Member | 11.82 | 2.88 | (p=0.416) |
| Non Club Member | 11.50 | 3.08 | |
| Escape | | | |
| Club Member | 11.21 | 2.18 | (p=0.070) |
| Non Club Member | 11.67 | 2.44 | |
| Social | | | |
| Club Member | 10.44 | 2.73 | (p=0.000) |
| Non Club Member | 8.72 | 3.16 | |
| Nature/Environment | | | |
| Club Member | 11.51 | 2.82 | (p=0.000) |
| Non Club Member | 12.54 | 2.43 | |
| To Learn | | | |
| Club Member | 9.00 | 2.46 | (p=0.000) |
| Non Club Member | 7.31 | 2.63 | |
| Challenge | | | |
| Club Member | 11.34 | 2.78 | (p=0.000) |
| Non Club Member | 9.09 | 3.30 | |
| Reward | | | |
| Club Member | 5.25 | 2.45 | (p=0.000) |
| Non Club Member | 4.35 | 2.26 | |

* Significant at $p \leq 0.05$

Results from a Mann Whitney U test revealed that, with the exception of Physical Exercise and Escape ($p > 0.05$), those who are Club Members are more motivated in all other factors than those who are Non Club Members ($p \leq 0.05$).

Figure 4.14 Motivational Factors of Club Members and Non Club Members (mean) for the Whole Group (n=460)



4.5.6 Motivation and Gender

Analysis on the Motivational Factors and Gender was conducted. These results are presented in Table 4.13 and illustrated in Figure 4.15.

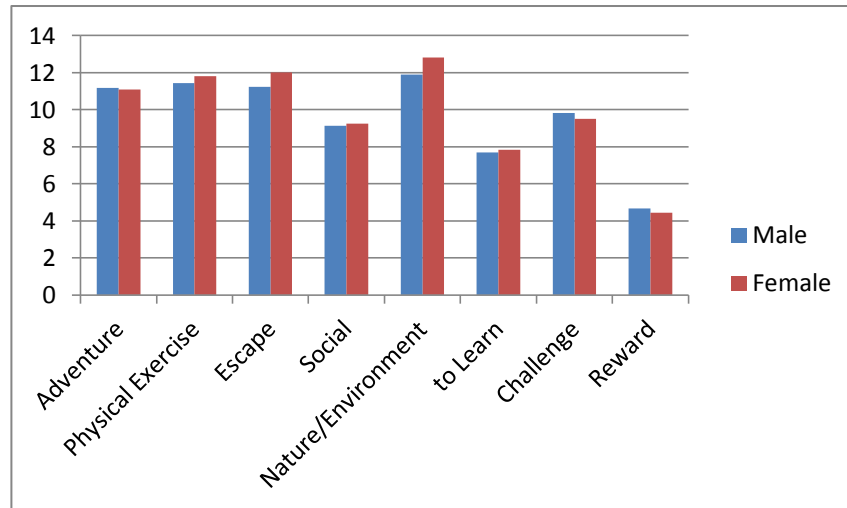
Table 4.14 Motivational factors and Gender (mean, \pm 1SD) for the Whole Group (n=460)

| | Gender | Mean | Std. Deviation | Sig. Diff |
|--------------------|--------|-------|----------------|-----------|
| Adventure | Male | 11.17 | 2.68 | (p=0.660) |
| | Female | 11.09 | 2.65 | |
| Physical Exercise | Male | 11.43 | 3.03 | (p=0.113) |
| | Female | 11.81 | 3.02 | |
| Escape | Male | 11.23 | 2.50 | (p=0.001) |
| | Female | 12.01 | 2.14 | |
| Social | Male | 9.13 | 3.04 | (p=0.668) |
| | Female | 9.24 | 3.30 | |
| Nature/Environment | Male | 11.89 | 2.75 | (p=0.000) |
| | Female | 12.80 | 2.21 | |
| To Learn | Male | 7.70 | 2.64 | (p=0.748) |
| | Female | 7.83 | 2.76 | |
| Challenge | Male | 9.81 | 3.46 | (p=0.216) |
| | Female | 9.51 | 3.12 | |
| Reward | Male | 4.68 | 2.39 | (p=0.287) |
| | Female | 4.45 | 2.26 | |

* Significant at $p \leq 0.05$

Results from a Kruskal-Wallis Mann-Whitney U has found that Females are significantly more motivated than Males for the motivational factors Escape ($p=0.001$) and Nature/Environment ($p=0.000$). No other differences were found ($p > 0.05$).

Figure 4.15 Motivational Factors and Gender (mean) for the Whole Group (n=460)



Section E

4.6 Level of Involvement

This section examines the Level of Involvement of the respondents with the activity that they were engaged in on the day that they were surveyed i.e. ‘Today’s Activity’.

4.6.1 Level of Involvement and Upland Activity, Club Membership and Gender

The results for Level of Involvement and upland activity are presented in Table 4.14 and illustrated in Figure 4.16. The maximum possible score for Level of Involvement is 25, with the total possible range score being from 5 to 25.

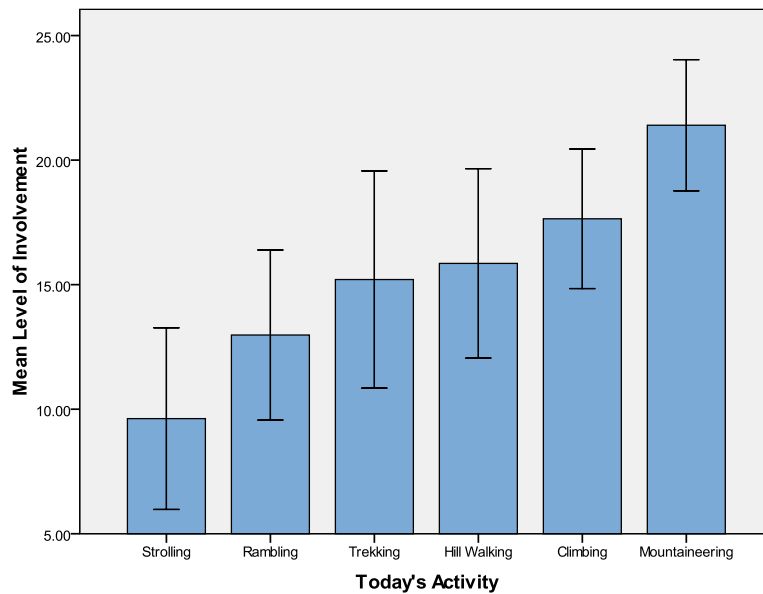
Table 4.15 Level of Involvement (mean \pm 1SD) and Today’s Upland Activity, Club Membership and Gender for the Whole Group (n=460)

| | N | Mean | Std. Dev. | Sig. Diff |
|-------------------------|-----|-------|-----------|-----------|
| Today’s Activity | | | | |
| Strolling | 90 | 9.62 | 3.65 | p=0.000 |
| Rambling | 45 | 12.98 | 3.41 | p=0.000 |
| Trekking | 35 | 15.34 | 4.37 | p=0.000 |
| Hill Walking | 193 | 15.88 | 3.86 | p=0.000 |
| Climbing | 90 | 17.64 | 2.80 | p=0.000 |
| Mountaineering | 10 | 21.40 | 2.63 | p=0.000 |
| Club Membership | | | | |
| Club Member | 121 | 17.06 | 4.22 | p=0.000 |
| Non Club Member | 339 | 13.96 | 4.48 | |
| Gender | | | | |
| Male | 268 | 15.08 | 4.50 | |
| Female | 192 | 14.35 | 4.48 | |

* Significant at $p \leq 0.05$

Results from a Kruskal-Wallis Test revealed that a significant difference between the recreationists Level of Involvement and the upland activities was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that Climbers and Mountaineers are significantly more involved in their activities than the other upland land based recreationists ($p=0.000$). Strollers ($p=0.000$) are significantly less involved in their activity than all of the other upland land based recreationists ($p=0.000$), while Ramblers are significantly less involved than Hill Walkers ($p=0.000$). No other differences were found ($p > 0.05$).

Figure 4.16 Level of Involvement (mean \pm 1SD) and Today's Upland Activity for the Whole Group (n=460)



From Table 4.14 it is evident that Mountaineers have the greatest Level of Involvement (17.64) with their activity, while Strollers have the lowest Level of Involvement (9.62). The results show that as the activity increases in difficulty the more the recreationists become involved in their activity. The strength of this relationship was measured using a Spearman Rho Correlation. The results showed that a large, significant ($p=0.000$) positive trend ($r=0.584$) exists.

4.6.1.2 Level of Involvement and Member of a Club or Organisation

Analysis was conducted to see what affect Club Membership would have on Level of Involvement. The results are presented in Table 4.14 and illustrated in Figure 4.17.

A Mann-Whitney U test has found that the differences between the Level of Involvement of Club Members and Non Club Members is significant ($p=0.000$).

Figure 4.17 Level of Involvement (mean \pm 1SD) and Club Membership

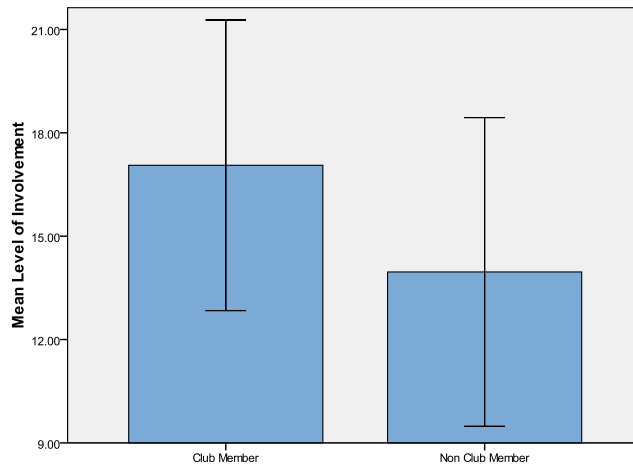


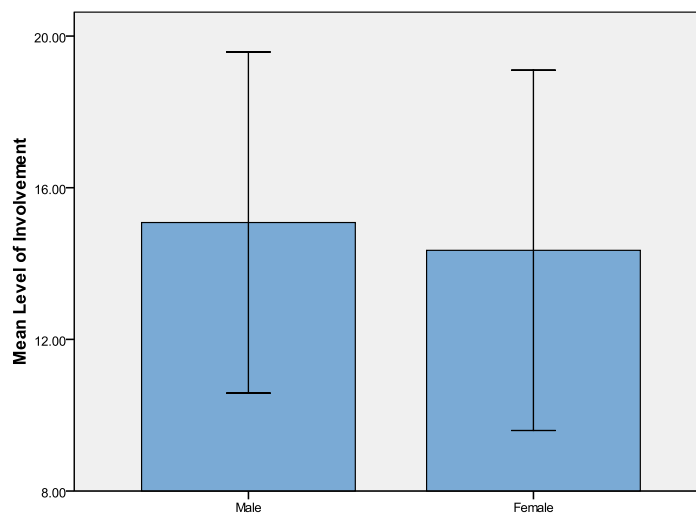
Table 4.16 shows that Club Members (17.06) are more involved in their upland, land-based, activities than Non Club Members (13.96).

4.6.1.3 Level of Involvement and Gender

Analysis was conducted to see what affect Gender would have on Level of Involvement. The results are presented in Table 4.14 and illustrated in Figure 4.18.

A Mann-Whitney U test has found that the differences between the Gender of the recreationists and their Level of Involvement in their chosen activity is not significant ($p=0.073$).

Figure 4.18 Level of Involvement (mean, \pm 1SD) and Gender



4.6.2 Level of Involvement of the Upland, Land-Based, Recreationists based on Three Categories of Recreationists (Beginners, Intermediates and Advanced).

A crosstabs analysis was conducted when the land based recreationists responses for Level of Involvement were grouped into three categories (beginner, intermediate and advanced). Based upon the workings of Brejeen (2007), the scores from the recreationists Level of Involvement were grouped into three categories. Those scoring between 5 and 11 were categorised as Beginners, those in the range of 12 to 18 were categorised as Intermediates and those scoring between 19 and 25 were categorised as Advanced recreationists. The results are presented in Table 4.15.

Table 4.16 Cross Tabs Analysis (%) of Level of Involvement of Land Based Recreationists in the Irish Uplands for the Whole Group (n=460)

| | Beginner (%) | Intermediate (%) | Advanced (%) |
|----------------|--------------|------------------|--------------|
| Strolling | 71* | 28* | 1* |
| Rambling | 36* | 62* | 2* |
| Trekking | 23* | 62* | 15* |
| Hill Walking | 10* | 68* | 22* |
| Climbing | 3* | 57* | 40* |
| Mountaineering | 0* | 10* | 90* |

*Significant at $p \leq 0.00$

Crosstab analysis shows that 71% of Strollers are beginners/novices, Ramblers (62%), Trekkers (62%), Hill Walkers (68%) and Climbers (57%) are intermediate recreationists and Mountaineers (90%) are advanced recreationists. A Chi-square test for independence indicated that there is a large ($\chi^2 = 0.47$), association between all the three categories of recreationists (beginner, intermediate and advance) and thier upland, land-based, recreational activity. For all associations the p value was 0.000.

4.6.3 Level of Involvement and Personality

The personality traits of the upland recreationists was compared with Level of Involvement. The results are present in Table 4.16.

Table 4.17 Personality (mean \pm 1SD) with Level of Involvement for the Whole Group (n=460)

| | Level of Involvement | | |
|--------------------------|----------------------|-------------------------|---------------------|
| | Beginner (n=135) | Intermediate (n=225) | Advanced (n=100) |
| Openness to Exp. | | | |
| Mean | 10.59 | 10.59 | 10.97 |
| Std. Dev. | 2.24 | 2.25 | 1.99 |
| Conscientiousness | | | |
| Mean | 11.24 | 11.18 | 10.87 |
| Std. Dev. | 2.19 | 2.25 | 2.30 |
| Extraversion | | | |
| Mean | 9.03 | 9.37 | 9.63 |
| Std. Dev. | 2.89 | 2.80 | 2.98 |
| Agreeableness | | | |
| Mean | 10.40 | 10.27 | 9.80 |
| Std. Dev. | 2.04 | 2.27 | 2.37 |
| Neuroticism | | | |
| Mean | 10.71 | 10.72 | 10.42 |
| Std. Dev. | 2.27 | 2.50 | 2.14 |

Kruskal-Wallis Testing has shown that there is no difference ($p > 0.05$) in the personality traits of the Beginners, Intermediate and Advanced groups for the upland recreationists.

4.6.4 Level of Involvement and Motivation

The recoded Level of Involvement groups (Beginner, Intermediate and Advanced) were analysed with the eight Motivational Factors and Total Motivation. The results are presented in Table 4.17 and illustrated in Figure 4.19.

Table 4.18 Recoded Level of Involvement (mean \pm 1SD) with the Eight Motivational Factors and Total Motivation for the Whole Group (n=460)

| | Level of Involvement | | |
|---------------------------|----------------------|-------------------------|---------------------|
| | Beginner (n=135) | Intermediate (n=225) | Advanced (n=100) |
| Adventure | *1 | *1 | *1 |
| Mean | 10.57 | 11.24 | 12.33 |
| Std. Dev. | 2.63 | 2.71 | 1.97 |
| Physical Activity | *1 | *3 | *3 |
| Mean | 10.61 | 12.15 | 11.64 |
| Std. Dev. | 3.28 | 2.95 | 2.53 |
| Escape | *2 | *2 | *1 |
| Mean | 11.96 | 11.77 | 10.51 |
| Std. Dev. | 2.29 | 2.38 | 2.22 |
| Social | *1 | *3 | *3 |
| Mean | 8.25 | 9.43 | 9.84 |
| Std. Dev. | 3.32 | 3.07 | 2.81 |
| Nature/Environment | *2 | *2 | *1 |
| Mean | 12.90 | 12.58 | 10.72 |
| Std. Dev. | 2.16 | 2.44 | 2.79 |
| To Learn | *1 | *1 | *1 |
| Mean | 6.93 | 7.70 | 8.98 |
| Std. Dev. | 2.52 | 2.86 | 2.17 |
| Challenge | *1 | *1 | *1 |
| Mean | 7.70 | 9.80 | 12.11 |
| Std. Dev. | 3.10 | 3.06 | 2.34 |
| Reward | *1 | *3 | *3 |
| Mean | 4.03 | 4.64 | 5.21 |
| Std. Dev. | 2.30 | 2.28 | 2.38 |
| Total Motivation | *1 | *3 | *3 |
| Mean | 72.46 | 79.31 | 81.34 |
| Std. Dev. | 13.04 | 12.83 | 10.95 |

* = Sig. Diff to all ($p \leq 0.05$)

** = Sig. > Advanced Group only ($p \leq 0.05$)

*** = Sig. > Beginner Group only ($p \leq 0.05$)

Results from a Kruskal-Wallis Test revealed that a significant difference between Level of Involvement and the eight motivational factors and Total Motivation was present ($p=0.000$). Further analysis (using a number of Mann-Whitney U tests) has found that the Level of Involvement for the Motivational factors; Adventure, To Learn and Challenge are significantly different among each category of recreationists ($p=0.000$).

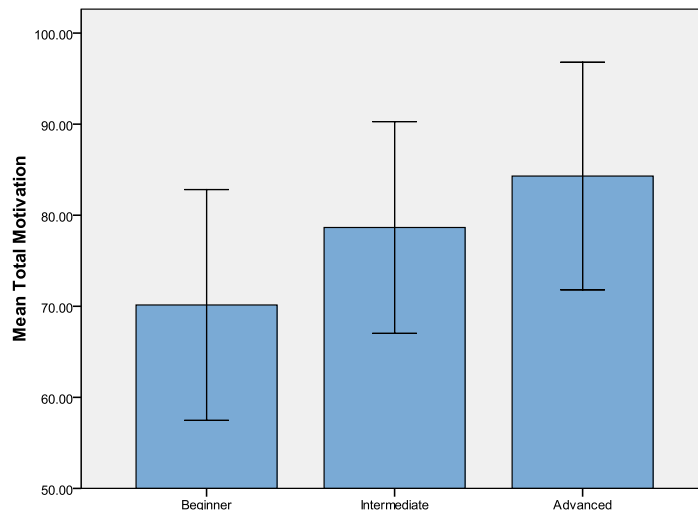
When comparing the recreationists Level of Involvement the results also showed that the Beginner and Intermediate groups, for the motivational factors; Escape ($p=0.000$) and Nature/Environment ($p=0.000$), are significantly greater than the Advanced group only. When the Beginner and Intermediate groups were compared, the results showed

that the Motivational Factors; Escape ($p=0.723$) and Nature/Environment ($p=0.439$) have no significant difference with each other.

The Intermediate and Advanced groups, for the motivational factors; Physical Activity, ($p=0.000$), Social ($p=0.017$) and Reward ($p=0.020$), have significantly greater differences than the Beginner Group only. When the mean scores for the Intermediate and Advanced Groups were compared the results showed that the Motivational Factors; Physical Exercise ($p=0.330$), Social ($p=0.514$), and Reward ($p=0.104$) all have no significant difference ($p > 0.05$) with each other.

When the mean scores for Total Motivation was analysed, the results showed that the Beginner group is significantly different ($p=0.000$) to the other two groups (Intermediate and Advanced). The results show that the Intermediate group ($p=0.369$) is not significantly lower than that of the Advanced group (this can be explained by a Type II error).

Figure 4.19 Level of Involvement (mean $\pm 1SD$) and Total Motivation of the Beginner, Intermediate and Advanced Groups for the Whole Group ($n=460$)



Results show that a positive trend that emerges between Total Motivation and Level of Involvement (Figure 4.19). As the respondents Level of Involvement in their chosen upland activity increased, so did their mean score for Total Motivation. The strength of this relationship was tested using a Spearman Rho Correlation. The results found that a

strong ($r= 0.586$), significant ($p=0.000$), positive relationship is present. This shows that as the upland recreationists progress from Beginners through to Advanced in their chosen activity the recreationists become more involved in their activity.

Section F

4.7 Percieved Identity

This section examines how the respondents identify themselves as participants of recreation in the uplands. According to Breejen (2007, p.1422), the Perceived Identity of recreationists is “a reflection of the respondents’ perceived ability and involvement in the activity”.

4.7.1 Percieved Identity and Upland Activity

The results for Percieved Identity and upland activity are presented in Table 4.18 and illustrated in Figure 4.20. The possible score for Perceived Identity ranges from 7 – 28.

Table 4.19 Perceived Identity (mean \pm 1SD) for Normal Upland Activity, Club Membership and Gender for the Whole Group (n=460)

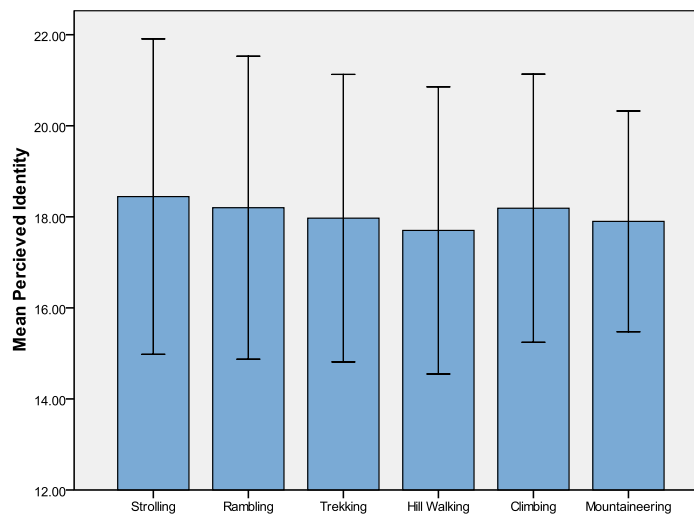
| | N | Mean | Std. Dev. | Sig. |
|------------------------|-----|-------|-----------|---------|
| Activity | | | | |
| Strolling | 87 | 18.44 | 3.46 | |
| Rambling | 56 | 18.20 | 3.23 | |
| Trekking | 51 | 17.97 | 3.15 | |
| Hill Walking | 206 | 17.70 | 3.16 | |
| Climbing | 37 | 18.19 | 2.94 | |
| Mountaineering | 23 | 17.90 | 2.42 | |
| Club Membership | | | | |
| Club Member | 121 | 14.70 | 2.19 | p=0.335 |
| Non Club Member | 339 | 13.30 | 2.68 | |
| Gender | | | | |
| Male | 268 | 17.63 | 3.20 | p=0.000 |
| Female | 192 | 18.55 | 3.07 | |

* Significant at $p \leq 0.050$

The results show (Table 4.18 and Figure 4.20) that Strollers have the greatest Perceived Identity (18.44) with their activity. Hill Walkers have the lowest Perceived Identity (17.70) for their activity.

Results from a non parametric Kruskal-Wallis Test have shown that there are no significant differences between Perceived Identity of the recreationists and the upland activities ($p=0.188$). Similarly, a Spearman Rho Correlation shows that there is no relationship between ones Percieved Identity and the type of upland recreation activity they normally do ($r= -0.029$).

Figure 4.20 Perceived Identity (mean $\pm 1SD$) and Normal Upland Activity for the Whole Group ($n=460$)



4.7.2 Perceived Identity and Club/Organisation Membership

Analysis was conducted to identify if a difference existed between Perceived Identity and Club/Organisation Membership. The results are presented in Table 4.18 and illustrated in Figure 4.21.

Figure 4.21 - Perceived Identity (mean $\pm 1SD$) and Club Membership for the Whole Group (n=460)

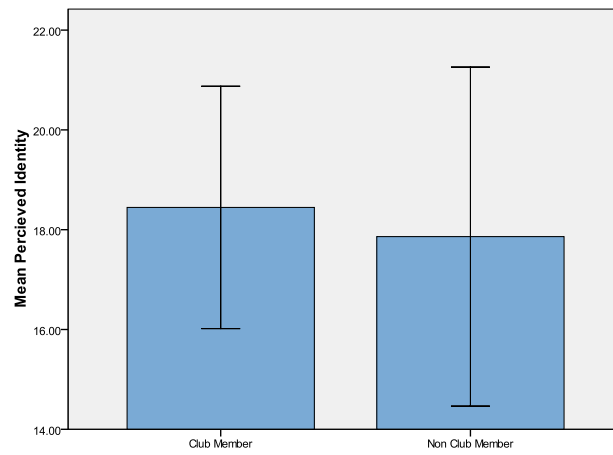


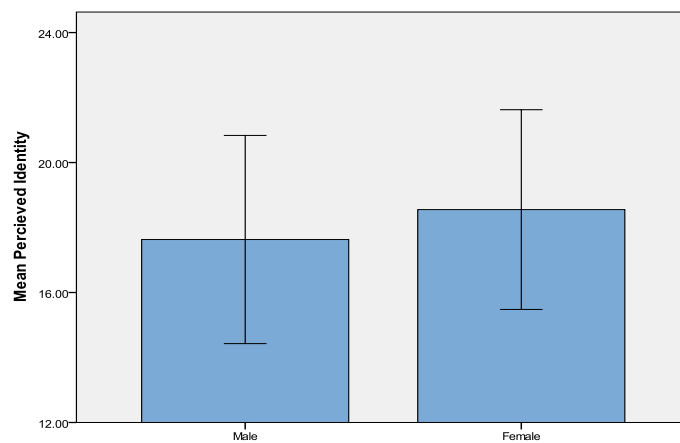
Figure 4.21 shows that Club Members (14.70) have greater Perceived Identity levels than Non Club Members (13.30).

A Mann-Whitney U Test has shown that the Perceived Identity of Club Members with their activity is not significantly higher than that of the Non Club Members ($p=0.335$).

4.7.2 Perceived Identity and Gender

Analysis was conducted to identify if a difference existed between Perceived Identity and the Gender of the recreationists. The results are presented in Table 4.18 and illustrated in Figure 4.22.

Figure 4.22 Perceived Identity (mean $\pm 1SD$) and Gender for the Whole Group (n=460)



The results show that Female (18.55) upland land based recreationists have higher levels of Perceived Identity with their activity than Males (17.63). Using a Mann-Whitney U Test, this difference was found to be significant ($p=0.00$).

4.7.3 Perceived Identity and Personality

The personality traits of the upland recreationists were compared with Perceived Identity. The results are presented in Table 4.19.

Table 4.20 Personality Traits (mean \pm 1SD) with Perceived Identity for the Whole Group (n=460)

| | Perceived Identity |
|-------------------------------|--------------------|
| Openness to Experience | |
| Mean | 7.15 |
| Std. Dev. | 3.75 |
| Conscientiousness | |
| Mean | 11.13 |
| Std. Dev. | 2.30 |
| Extraversion | |
| Mean | 9.33 |
| Std. Dev. | 2.87 |
| Agreeableness | |
| Mean | 10.20 |
| Std. Dev. | 2.23 |
| Neuroticism | |
| Mean | 10.66 |
| Std. Dev. | 2.36 |

Results from a Kruskal-Wallis Test has shown that there are no differences present between the Personality Traits of the upland recreationists and their Perceived Identity with their chosen activity ($p > 0.05$).

4.7.4 Perceived Identity and Motivation

Perceived Identity was analysed with each of the eight motivational factors and Total Motivation. The results are present below in Table 4.20.

Table 4.21 The Eight Motivational Factors and Total Motivation (mean \pm 1SD) with Perceived Identity for the Whole Group (n=460)

| | Perceived Identity |
|---------------------------|--------------------|
| Adventure | |
| Mean | 11.13 |
| Std. Dev. | 2.66 |
| Physical Exercise | |
| Mean | 11.59 |
| Std. Dev. | 3.03 |
| Escape | |
| Mean | 11.55 |
| Std. Dev. | 2.38 |
| Social | |
| Mean | 9.17 |
| Std. Dev. | 3.14 |
| Nature/Environment | |
| Mean | 12.27 |
| Std. Dev. | 2.58 |
| To Learn | |
| Mean | 7.75 |
| Std. Dev. | 2.69 |
| Challenge | |
| Mean | 9.68 |
| Std. Dev. | 3.32 |
| Reward | |
| Mean | 4.59 |
| Std. Dev. | 2.34 |
| Total Motivation | |
| Mean | 77.74 |
| Std. Dev. | 12.96 |

Results from a Kruskal-Wallis Test has shown that there are no differences between the Motivations of the upland recreationists and their Perceived Identity ($p > 0.05$).

4.8 Perceived Identity and Level of Involvement

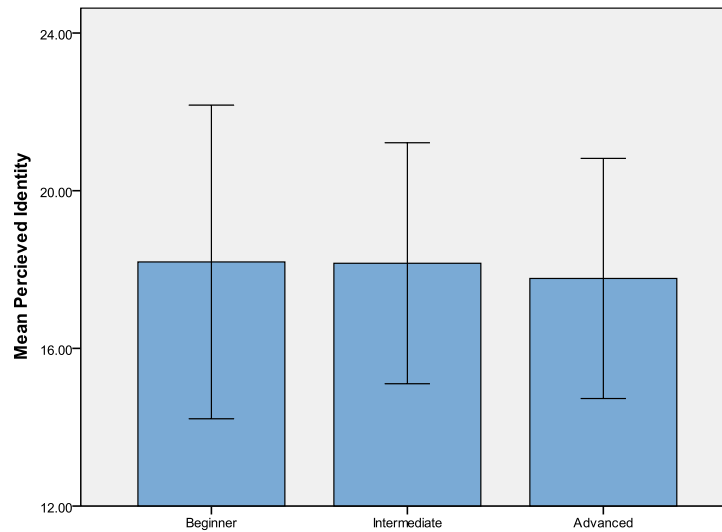
The Perceived Identity and Level of Involvement of the upland recreationists was compared. The results are presented in Table 4.21 and illustrated in Figure 4.23

Table 4.22 Level of Involvement (mean, \pm SD) and Perceived Identity for the Whole Group (n=460)

| | Beginner (n=57) | Intermediate (n=226) | Advanced (n=177) |
|---------------------------|---------------------------|--------------------------------|----------------------------|
| Percieved Identity | | | |
| Mean | 18.19 | 18.16 | 17.77 |
| Std. Dev. | 3.98 | 3.06 | 3.05 |

Results from a Kruskal-Wallis Test and Spearman Rho Correlation has shown that there is no difference ($p = 0.121$) or relationship ($r = -0.074$) between the Perceived Identity of upland recreationists and their Level of Involvement in their activity.

Figure 4.23 Level of Involvement (mean \pm 1SD) and Perceived Identity for the Whole Group (n=460)



Chapter 5

Discussion

5.1 Introduction

Over the last forty years research has been conducted in the fields of behavioural, cognitive and environmental psychology in the quest to develop a greater understanding of who the people are that participate in outdoor recreation activities and to understand what motivates them to do so.

The findings of this study will be discussed in this chapter in relation to the current literature. In particular this discussion will focus on; the demographic profile of the upland, land-based, recreationists, their personality profiles, their motivations for participation and their level of involvement and perceived identity. Predominantly the findings from this study will be compared with the study of Bergin and O’Rathaille (1999) which, to the best of the researcher’s knowledge, is the only study that has looked at the demographics and motivations of upland recreationists in Ireland. Comparisons will also be made with international literature.

5.2 Demographic Profile of the Land Based Recreationists in the Irish Uplands

The diversity of the Irish uplands, that caters for people of all ages, levels, abilities and recreational experience, is what makes the uplands appealing to a broad spectrum of people. Results from this study show that more males (58%) participate in land based recreation in the Irish uplands than females (42%). This is in keeping with data found by Bergin and O’Rathaille (1999) (63% v 37%), however, the increase in participation by females is encouraging and the gap between the genders appears to be narrowing towards the United States trend where men and women recreate in National Park Trails in equal measure (Librett *et al.*, 2006).

The age of the majority (73%) of recreationists in this study ranged from twenty six to fifty five years old, which, again concurs with the findings of Bergin and O’Rathaille (1999). The age of upland, land based, recreationists in Ireland are also consistent with the age profiles of land based recreationists internationally. Kim *et al.*, (2003) and Raadik *et al.*, (2010) found that the majority of recreationists to Korean (61%) and Swedish National Parks (64%) respectively, are aged between twenty six and fifty five years. It is the premise of the author that the low numbers of recreationists represented in the Irish uplands under the age of twenty five is due to the emphasis of participation

in mainstream team sports (such as GAA, soccer and rugby) in educational institutions (primary, secondary and third level) throughout Ireland.

In 1999, only 22% of visitors to the Irish uplands were members of clubs or national organisations (such as Mountaineering Ireland) (Bergin and O’Rathaille, 1999) while in 2012 this figure has only risen to 26%; this study found that the majority of visitors (74%) to the Irish uplands were not affiliated to any walking clubs or national organisations.

While Climbers and Mountaineers prefer to tackle climbs and mountains with other recreationist’s who are of a similar ability, they choose to participate in small groups and not in guided groups. This study found that 62% of Climbers and 61% of Mountaineers (normal activity) in the Irish uplands are members of national organisations, thus supporting the findings of Bergin and O’Rathaille (1999) who found that Members of Mountaineering Ireland (formerly the Mountaineering Council of Ireland) “are most interested in rock climbing” (p. 20).

Ewert and Hollenhorst (1989) also found that serious Climbers and Mountaineers are less likely to be members of walking clubs and organisations, but are likely to be associated members of national organisations. Despite being the most popular activity in the Irish uplands, only 33% of Hill Walkers are members of clubs or organisations. While only 3% of Strollers are affiliated to any club or organisation. Thus supporting the research by Ewert and Hollenhorst (1989) who found that recreationists who participate in outdoor activities that require lower levels of involvement in their activity (Strolling, Rambling and Trekking) are less likely to be affiliated to any club or organisation.

The most popular form of recreation in the Irish Uplands found in this study is Hill Walking (45%) which is in keeping with that reported by Bergin and O’Rathaille (1999). Blessed with endless scenic beauty in locations that are close to large urban populations (Bergin & O’Rathaille, 1999), makes the Irish uplands appealing to recreationists who wish to go for a gentle relaxing stroll in the countryside.

The creation of footpaths around locations such as the lakes of Glendalough and Lough Tay in County Wicklow, surrounded by steep inclines makes Strolling (19%) an

attractive recreational activity for people who simply want to experience the Irish uplands at their own leisurely pace, or with family and friends.

Rambling (12%) and Trekking (11%) require more planning, preparation and equipment than Strolling. As such, these activities are not as popular as Strolling. Given the contrasting characteristics of Climbing and Mountaineering (e.g. the need to have specialist training, dedication and the need to seek out specific types of landscapes, i.e. rock/cliff faces, steep inclines etc.) Climbing (8%) and Mountaineering (5%) are not as popular in the Irish uplands as the other pre-mentioned activities.

While the results from this study are consistent with the research by Frochet's (2005) study on tourism in rural Scotland for Climbers (with 6% of visitors to rural Scotland participating in Climbing) Frochet's (2005) results for Trekking and Rambling are not consistent with this study. According to Frochet (2005), 33% of visitors to rural Scotland are there to participate in Long Distance Walks, thus not supporting the findings from this study.

5.3 Personality Profiles of the Land Based Recreationists in the Irish Uplands

Over the last few decades the number of people who head to the hills and mountains for recreational purposes has considerably increased. Numerous studies have been conducted internationally on the personality traits of upland recreationists involved in Climbing and Mountaineering (Baric, *et al.*, 2004; Breivik, 1996; Burnik, *et al.*, 2005; Egan & Stelmack, 2003; Freixanet, 1991; Sleasman, 2004), however, no known study has been conducted in this area in Ireland.

When compared to the normative data from Gosling *et al.*'s., (2003) research, this study found that land based recreationists in the Irish uplands are more conscientious (mean = 11.13), extraverted (mean = 9.33) and have greater levels of neuroticism (mean = 10.66) than the general population (means of 10.80; 8.88 and 9.66 respectively). Land based recreationists in the Irish uplands have similar levels of agreeableness (mean = 10.20) and openness to new experiences (10.20) than the general population.

5.3.1 Openness to Experience

According to Costa and McCrae (2008), people who prefer variety in their lives (e.g. entrepreneurs), are attentive to their inner feelings (e.g. counsellors), and have intellectual curiosity (e.g. academics) as opposed to gaining comfort in being surrounded by familiarity (e.g. machinists) are distinguished by Openness to Experience. Schmitt (2008) suggested that only a small number of individuals will score extremely high, or low for Openness to Experience with the majority of the population scoring near the average (mean of 4.00 to 8.00). When compared with the normative data (mean of 10.76) from Gosling *et al's.*, (2003) study the results showed that land based recreationists in the Irish uplands have similar levels of Openness to Experience (mean of 10.86).

Individuals who are closed to the experience (low scores of Openness to Experience) tend to stick to familiar experiences and routes and designated footpaths, while those who are high in Openness to Experience are more likely to divert off the beaten track in search of new experiences (Mayer and Sutton, 1996).

This study found that all of the land based recreationists in the Irish uplands have high levels of Openness to Experience with results scoring an average mean of 10.86 (\pm SD 2.20) out of a possible maximum score of 14. No difference ($p= 0.440$), or relationship ($r= 0.099$), in the levels of openness to experience and the activity choice of the recreationists were found. This would indicate that recreationists, irrespective of their chosen activity, are similar with respect to this personality trait.

The findings from this study are consistent with the findings of Burnik *et al.*, (2005) who found that general upland recreationists and Mountaineers in the Slovakian Mountains scored high levels of Openness to Experience with average mean scores of 7.84 (\pm SD 2.63) and 8.70 (\pm SD 2.31) respectively out of a possible maximum score of 10.00.

The very nature of upland land based recreation, taking place in vast open landscapes, provides recreationists with ample opportunities to engage in new experiences every time they set out for their recreational experience. One location can provide many different experiences for the recreationist depending upon the route taken, the difficulty level sought and the changing weather conditions. A route taken on a lovely summer's

day will provide a completely different experience when undertaken on a harsh winter's day.

While scoring high traits for Openness to Experience, strollers tend to stick to designated routes in the Irish uplands by visiting locations that have established footpaths and trails to follow. Characterised by footpaths, beautiful scenery and water features (waterfalls and lakes), locations such as Glendalough in the Wicklow Mountains and the Mahon Falls in the Comeragh Mountains are popular sites for Strollers. With the exception of the changing weather conditions, once a stroller has visited and walked a particular route that route will no longer provide the same opportunities to experience something new.

Unlike Strollers, Climbers and Mountaineers use footpaths and trails as a means of getting to locations where climbing can take place. Usually, rock faces and boulders that are used by Climbers and Mountaineers are only accessible by taking routes that are off the beaten tract. The remoteness of the locations used by Climbers and Mountaineers provide ample opportunities for them to experience new experiences. One rock face alone (Ballykeefe Quarry, Kilkenny) can cater for both rock climbing and abseiling while providing the recreationist with a number of different routes and a variety of difficult levels. Ireland's highest mountain, Carruntuohill in the MacGillycuddy Reeks, attracts some of Ireland's most experienced Climbers and Mountaineers. It provides a location for experienced Mountaineers to hone their skills prior to tackling steeper and higher mountains around the world.

Mountaineers in the Irish uplands are more open to participating in activities that are unfamiliar to the Mountaineer and that involve new experiences. These findings suggest that land based recreationists in the Irish uplands are characterised by questioning traditions and values and will seek recreation in a number of Irish upland locations (Brody & Ehrlichman, 1998; Costa & McCrae, 2008; Feist & Feist, 2009; Mayer & Sutton, 1996; Mischel, 1999).

5.3.2 Conscientiousness

Conscientiousness is a personality trait that describes how organised an individual is (Costa and McCrae, 2008). When compared with the normative data from Gosling *et al's.*, (2003) study the results showed that land based recreationists in the Irish uplands have higher levels of Conscientiousness (mean of 11.13) than the general population

(mean of 10.80). Individuals who score high for Conscientiousness (mean >8.00), tend to be well organised in both their everyday lives and in their recreational activity (*ibid*). Conscientious individuals will head out on their recreational activity with a predefined route clearly defined and any equipment that is needed for their activity will be organised well in advance to departure (Baric *et al.*, 2004). Individuals who score low levels (mean <4.00) of Conscientiousness tend to be unorganised, messy and will typically head out for a recreational activity at the spur of the moment with no planning or preparation involved (*ibid*).

This study found that upland recreationists in Ireland scored high levels of Conscientiousness with an average mean of 11.13 (\pm SD 2.30) out of a maximum scored of 14. There is also no difference ($p= 0.579$) or relationship ($r=0.015$) between the upland recreationists levels of Conscientiousness and their choice of upland activity. This would indicate that land based recreationists in the Irish uplands, irrespective of their chosen activity, are similar with respect to this personality trait.

These findings are inconsistent with the research of Baric *et al.*, (2004) who found that climbers and mountaineers have significantly higher levels of Conscientiousness ($p=0.000$) than participants of lower risk outdoor activities. According to Baric *et al.*, (2004), Conscientiousness is an important attribute to exhibit for any climber or mountaineer. Baric *et al.*, (2004) suggested that the ability to be a good team player and to maintain good healthy relationships with others is an important attribute for any mountaineer due to the high levels of risk involved in the activity.

This study suggests that upland recreationists in the Irish uplands are all conscientious individuals. As a keen participant of land based recreation in the Irish uplands, the author has noted that the cleanliness of the Irish uplands is a testament to the Conscientious levels of upland recreationists. Despite there being relatively few dustbins around the uplands (normally only found in car parks) there is very little litter left scattered around the Irish uplands. The same can be said for upland recreationists following countryside etiquette by closing gates and not disturbing flora or fauna while out in the uplands.

5.3.3 Extraversion

According to Costa and McCrae (2008), an individual who scores high for Extraversion is predominantly concerned with gaining positive feedback from external sources (friends, family, peers etc.). When compared with the normative data from Gosling *et al.*'s., (2003) study the results showed that land based recreationists in the Irish uplands have higher levels of Extraversion (mean of 9.33) than the general population (mean of 8.88). Extravert individuals tend to be talkative, enthusiastic and assertive and enjoy spending times in social settings. Burnik *et al.*, (2005) suggested that Extraverted recreationists will seek out activities that include large gatherings of people (e.g. being members of walking clubs). On the opposite end of the scale Costa and McCrae (2008) noted that those who score low for Extraversion, Introverts, tend to be quiet and reserved and prefer to spend time in their own company. Introverted recreationist will seek out activities that involve few people, but before participation they will observe the activity (and those involved in the activity) prior to participation (Burnik *et al.*, 2005).

This study found that recreationists in the Irish uplands, involved in land based activities, had similar ($p= 0.609$) and high scores for the personality trait Extraversion with an average mean score of 9.33 (\pm SD 2.87), out of a possible score of 14, which indicates that all land based recreationists in the Irish uplands are Extroverted. Extroverts tend to be outgoing, jovial, talkative, affectionate and fun loving in contrast to introverts who are more likely to be quiet, passive, lonely and reserved (Costa and McCrae 2008; Feist and Feist, 2009; McCrae and Costa 1997). Therefore it is reasonable to suggest that Extroversion is, in fact, in keeping with participating in an outdoor activity either alone or with others.

The findings from this study are consistent with the research by Burnik *et al.*, (2005) who found that both upland, outdoor recreationists and mountaineers in the Slovakian Mountains both scored similar ($p=0.313$) and high mean scores of 6.64 (\pm SD 2.46) and 7.12 (\pm SD 2.46) respectively, out of a possible maximum score of 10.00, for the personality trait Extraversion. However, these findings do not support the results of Egan and Stelmack (2003) who compared the personality profiles of mountaineers at Base Camp at Mount Everest with general upland recreationists in the Himalayas. Egan and Stelmack (2003) found that mountaineers (mean of 14.80, SD 3.7, range 2-18)

displayed significantly higher levels ($p=0.000$) of Extraversion than general upland recreation participants (mean of 11.9, SD 5.7).

This study shows that Female upland recreationists exhibit higher levels of Extraversion than their male counterparts ($p=0.044$) which is inconsistent with the findings of Feher *et al's.*, (1998) study on the personality traits of rock climbers in the United States. According to Feher *et al.*, (1998), there is no difference ($p= 0.071$) in the gender of rock climbers and their personality traits.

This study also found that those who are members of clubs or organisations also exhibit higher levels of Extraversion than non club members ($p=0.05$). By its very nature, to be a member of a club organisation involves the individual to go out and actively meet with new people and be involved in an activity with like minded people. Therefore it would be expected that club members have higher traits of Extraversion than non club members.

5.3.4 Agreeableness

Agreeableness distinguishes people who are ruthless from those who are soft hearted (Costa & McCrae, 2008). When compared with the normative data from Gosling *et al's.*, (2003) study the results showed that land based recreationists in the Irish uplands have similar level of Agreeableness (mean of 10.20) when compared with the general population (mean of 10.46). Those who score high in Agreeableness tend to be good natured, trusting and generous while those at the opposite end of the scale tend to be irritable, stingy and critical of other people (*ibid*).

This study found that land based recreationists in the Irish uplands all display a high level of agreeableness, with an average mean of 10.20 (\pm SD 2.23) from a maximum score of 14, and that it is not affected by activity choice ($p= 0.519$). This would indicate that land based recreationists in the Irish uplands, irrespective of their chosen activity, are similar with respect to this personality trait and is consistent with the findings of Levenson (1990). According to Levenson (1990), skill level has no influence over the upland recreationist's activity choice as no relationship was found ($r= -0.051$) between the personality trait Agreeableness and the activity choice of the recreationists.

In contrast this study does not support the research by Burnik and Tusak (1999) who found that climbers and mountaineers scored significantly higher results ($p=0.001$) for the personality trait Agreeableness than general upland recreationists. This research also contrasted with the research of Driver and Knopf (1977) who found that ‘National Trail walkers’ scored lower results for the personality trait Agreeableness than the norm group (local walkers).

An important attribute to exhibit for an upland recreationist is to be able to maintain control of their socially unacceptable impulses (Baric, *et al.*, 2004). Being out in the vast open landscape of the Irish uplands in groups of people requires that individual’s can get along and not create points of conflict either during a long walk or when faced with overcoming a challenge (which route to take to reach the summit etc).

In comparison to mountain ranges in the rest of the world, Ireland has relatively low level mountain ranges. While the Irish landscape can provide recreationists with difficult challenges to overcome, the decision making processes required to tackle the Irish uplands safely can be well thought out and planned. Even in times of peril the upland recreationist is always going to be in a location that is accessible by a rescue team or helicopter. As such, the relative safety of the Irish uplands does not require that recreationists have the high levels of agreeableness that is required when climbing in the Himalayas or in the Rocky Mountains. Even those who participate in Mountaineering in the Irish uplands are always close to help (e.g. Cronin’s yard at the base of Carrantuohill is the also the base of the mountain rescue team) so generally, Mountaineers will never be left in a situation where they are facing peril for days on end, miles from anywhere.

5.3.5 Neuroticism

Neuroticism is the personality trait that is responsible for individual’s experiencing positive and negative emotional states (Costa and McCrae, 2008). When compared with the normative data from Gosling *et al’s.*, (2003) study the results showed that land based recreationists in the Irish uplands have higher levels of Neuroticism (mean of 10.66) than the general population (mean of 9.66). Those who score high on Neuroticism tend to be anxious, self conscious and emotional compared with those who score low on Neuroticism who tend to be unemotional, calm and even tempered (Brody & Ehrlichman, 1998; Costa & McCrae, 2008; Feist & Feist, 2009; Mayer & Sutton,

1996; Mischel, 1999). According to Egan and Stelmack (2003) individual's who possess low levels of Neuroticism exhibit characteristics which display low reactivity to stressful situations.

This study found that upland recreationists scored high levels of Neuroticism, with an average mean of 10.66 (\pm SD 2.36) from a maximum score of 14. There was no difference ($p= 0.485$) or relationship present ($r= 0.005$) between the personality trait Neuroticism (mean of 10.66, SD 2.36) and the activity choice of land based recreationists in the Irish uplands. This would indicate that land based recreationists in the Irish uplands, irrespective of their chosen activity, are similar with respect to this personality trait which is inconsistent with the findings of Burnik *et al.*, (2005) and Egan and Stelmack (2003).

Burnik *et al.*, (2005) found that Slovakian Mountaineers scored significantly ($p=0.001$) lower values for Neuroticism (mean of 3.22, SD 2.49, range 2-10) than general upland recreationists (mean of 5.00, SD 3.00,). Egan and Stelmack (2003) found that those involved in high risk recreational activities such as Climbing (mean of 7.1, SD 4.3) and Mountaineering (mean of 7.1, SD 3.2) display lower levels of Neuroticism than general recreationists (mean of 11.9, SD 5.7). According to Egan and Stelmack (2003), this is due to the need for Climbers and Mountaineers to remain calm when placed in highly stressful situations.

While this study does not support previous research of the personality trait Neuroticism, it is important to remember the different variables involved in the study. The field research for this study was conducted over the summer and autumn months of June to October, during which time the conditions on the mountains would be more favourable than in the winter months. While the Irish winters can provide harsh and hazardous conditions for any recreationists, the relatively low heights of the mountain peaks (when compared with those in the Alps and the Himalayas) enable Mountaineers to hone their skills in preparation to tackling the world's highest peaks.

5.4 Motivations of Upland Recreationists in the Irish Uplands

Research into the motivations of outdoor recreationists was prominent in the 1960's with researchers focused upon the activity, rather than the individual. Derived from the

workings of Driver and Knopf (1977), research involved in the study of motivations of outdoor recreationists has since shifted from focusing on the activity to focusing on the individual. One of the aims of this study was to examine what motivates people to visit the Irish uplands for the purpose of land based recreation.

5.4.1 Total Motivation

According to Nowacki (2009) and Zabkar *et al.*, (2010), our behaviours and actions are driven by incentives that either produce pleasure or alleviate an unwanted or unpleasant state. Such actions include everyday behaviours such as going to work or school, or going for a stroll or mountaineering at the weekend. The premise of this study was to investigate which motivational factors have the greatest influence on outdoor recreation participation in the Irish uplands.

This study found that in the Irish uplands Mountaineers are the most motivated recreationists, with an average mean of 83.70 (\pm SD 9.64) out of a maximum score of 120.00. Strollers, with an average mean of 72.60 (\pm SD 13.10), and Ramblers, with an average mean of 72.18 (\pm SD 13.06), are the least motivated recreationists. What also emerged from this study is that a positive relationship ($r= 0.239$) exists between the total motivation of the upland recreationists and the difficulty level of the activity which is consistent with the findings of Ewert and Hollenhorst (1989, 1994) and Young *et al.*, (2002).

Ewert and Hollenhorst (1989, 1994) and Young *et al.*, (2002) found that there is a relationship between the Total Motivation of the recreationists and the difficulty level of the activity that they engage in. Ewert and Hollenhorst (1989) found that mountaineers have a greater involvement with their activity than other outdoor recreationists. While Young *et al.*, (2002) found that outdoor recreationists involved in activities (climbing and mountaineering) that require greater levels of expertise and ability, have significantly ($p= 0.076$, sig. level = 0.100) greater levels of involvement (mean of 5.8, \pm SD 1.8) than general upland recreationists (mean of 5.2, \pm SD 2.0).

Those who visit the Irish uplands for the purpose of going for a stroll are engaging in an activity that requires little planning or equipment to participate. The Irish uplands has an abundance of sites of locations that cater for recreationists that are just out for a gentle

stroll. Locations such as Glendalough provide onsite amenities including a car park, toilet facilities, cafe and picnic areas, as well as managed footpaths and looped walks. Locations such as these, take the involvement level away from the individual as everything that they could need in the while out for a stroll in the countryside is widely available.

As the difficulty level of the activity increases, the more training, planning and equipment becomes involved. The financial cost alone of participating in these courses (e.g. Single Pitch Award and Mountain Skills) and purchasing the equipment (walking boots, climbing shoes, rucksacks, ropes, climbing harnesses, helmets etc.) can impact greatly on the participant. Also, while there is an abundance of locations around Ireland that are capable of sustaining activities such as climbing and mountaineering greater distances has to be travelled to reach these sites. Therefore only those who are greatly motivated by participation in these activities will participate.

5.4.2 Motivational Factors

With the number of visitors to the Irish uplands on the increase year by year, this study was conducted to see what motivates the people to visit the Irish uplands for the purpose of land based recreation. The results from this study have found that the upland recreationists are motivated by a number of motivational factors. The greatest motivational factor was; to be in Nature/Environment with a mean score of 12.27 (\pm SD 2.58) out of a maximum score of 15. Physical Exercise and Escape were the two next important motivational responses with means of 11.59 (\pm SD 3.03) and 11.55 (\pm SD 2.38) respectively, closely followed by Adventure with a mean of 11.13 (\pm SD 2.66). Land based recreationists in the Irish uplands were least motivated by 'Reward' with a mean of 4.59 (\pm SD 2.34).

5.4.3 Adventure

Defined by Ewert and Hollenhorst (1989, p. 209) as:

“a variety of self-initiated activities utilizing an interaction with the natural environment, that contain elements of real or apparent danger, in which the outcome, while uncertain, can be influenced by the participant and circumstance”.

Adventure is a motivational factor that can have different meanings among recreationists based upon their skill and ability level in their chosen activity. For some an adventure can be a weekend trekking and camping in the Irish uplands, for others it can be scaling a previously un-scaled rock face. An adventure is what the individual makes it to be.

The findings from this study show that the motivational factor Adventure is an important reason for participation for all land based recreationists in the Irish uplands, with an average mean of 11.13 (\pm SD 2.66) out of a maximum score of 15.00). Adventure has the most importance for Climbers and Mountaineers, with means of 12.28 (\pm SD 2.03) and 12.80 (\pm SD 1.32) respectively, and the least importance for Strollers with a mean of 10.06 (\pm SD 2.86). This study also found that there is a significant ($p=0.000$), positive relationship ($r=0.285$) between the motivational factor Adventure and the difficulty and skill level required to participate in an activity. Thus suggesting that the importance of the motivational factor Adventure becomes greater the more difficult the activity becomes.

These findings are consistent with the findings of Ewert and Hollenhorst (1989), Ewert (1993, 1994) and Todd *et al.*, (2000) who all found that one of the main reasons that mountaineers around the world participate in outdoor recreational activities is to experience an Adventure (Ewert and Hollenhorst, 1989, Ewert, 1994, and Todd *et al.*, 2000). According to Todd *et al.*, (2000), the Adventure of the experience is the main reason for participation (mean of 3.9, SD 0.96, range 1-5). With risk and danger central to the adventure experience, Ewert (1993) proposed that level of the experience and skill level of the individual does not take away from the adventure experience. Merely, individuals will seek out activities that offer themselves with opportunities to experience adventure based upon their own skill and experience levels.

The high levels of the motivational factor Adventure in upland recreationists in Ireland supports the findings of Ewert's (1993) study. Ewert (1993) found that outdoor recreationist, regardless of the choice of activity, are all motivated to participate in their activity by the Adventure of the activity regardless of their skill and experience level. According to Ewert and Hollenhorst (1989), central to the Adventure experience are the risks involved in the activity. The inter play of perceived risk and real risk is key to

increasing the overall Adventure experience. For a novice who is in the Irish uplands with the aim of reaching their first summit, the risk level will be greater for them than someone who regularly summits the hills and mountains in the Irish uplands. This does not take away from the Adventure experience; merely it suggests that the more experienced and involved in an activity that one becomes the more challenging the experience needs to be to create the same heightened perception of risk.

As with other mountainous regions around the world the Irish uplands has become increasingly commercialised. Private and semi private organisations offer individuals and groups with opportunities to experience an Adventure in the Irish uplands for commercial purposes (e.g. Dunmore East Adventure Centre, Shielbaggan OEC etc.). The importance of the motivational factor Adventure in exploiting individuals to participate in the adventure experience is apparent in any organisation that is commercialising the adventure experience. Indeed the having Adventure in the name of an organisation (e.g. Dunmore East Adventure Centre etc) pulls people towards that organisation with the expectation that the individual will be taken on a adventure.

While the Irish uplands might not have the steepest or highest mountains that the world has to offer they provide recreationists, regardless of activity and ability levels, with opportunities to engage in an adventure without having to leave these shores. This would explain why all of the land based recreationists in the Irish uplands rate adventure as a highly important motivational factor regardless of what activity, skill or experience level that they have in their upland activity.

5.4.4 Physical Exercise

With obesity levels in Ireland on the increase (McGreevy, 2012) the concern is that more and more people in Ireland will suffer from a number of obesity related illnesses (heart disease, diabetes, stroke etc), therefore exercise has never been so important. Physical Exercise has been shown to reduce overall cholesterol levels and reduce the risk of developing some form of cardiovascular disease by approximately thirty per cent (Green, *et al.*, 2008; Wesson, *et al.*, 1998). In the fight to tackle obesity the Irish uplands have become a key marketing tool within public health boards and local planners as they work together to improve access to the countryside, while increasing

the promotion and awareness of benefits of Physical Exercise in the uplands (Bucliner & Miles, 2002).

This study found that the motivational factor Physical Exercise was the second most important motivational factor for land based recreationists in the Irish uplands with an average mean of 11.59 (\pm SD 3.03) out of a maximum mean of 15.00. Those who participate in Hill Walking are more motivated by the benefits of Physical Exercise with an average mean of 12.36 (\pm SD 2.78). These findings are consistent with the findings of Bergin and O'Rathaille (1999) and Young *et al.*, (2003).

Bergin and O'Rathaille (1999) found that the motivational factor Exercise and Sport (26%) was the second most important reason (closely behind Scenery and Landscape, 27%) for all visitors to the Irish uplands. The study by Bergin and O'Rathaille (1999) also found that visitors to the Irish uplands who are members of Mountaineering Ireland (formerly the Mountaineering Council of Ireland) reported that, Exercise and Sport was their main reason for visiting the Irish uplands (98% of all MI members).

Similarly, Young *et al.*, (2003) found that the motivational factor Physical Fitness rated highly among outdoor recreationists in the United States. Young *et al.*, (2003) found that, out of nineteen motivational factors for participation, Physical Fitness rated the third most important motivational factor with an average mean of 7.0 (\pm SD 1.6) from a maximum mean of 10.00.

The Irish uplands provides recreationists of all fitness levels with opportunities to engage in Physical Exercise. The benefit of exercising in the Irish uplands is the recreationist is surrounded by wonderful landscapes and scenery while partaking in Physical Exercise. The beauty of the landscape takes away from the monotonous surroundings of local gyms and swimming pools, enabling the recreationist to stroll through woodlands and open fields.

Board walks and loop walks have been established to take in the wonderful lake side and mountain views while providing opportunities to engage in strolls with the family or friends (e.g. Glendalough). For the recreationist who wants to push themselves a little further rolling hillside are in abundance throughout Ireland taking in spectacular

views along the way (e.g. the Comeragh Mountains). While locations such as the MacGillycuddy reeks in Kerry provide a greater challenge to recreationists to push their fitness levels even further.

The importance of maintaining physical fitness levels and participating in regular exercise has never been more important due to the increasing levels of obesity in the western world. With the demise of the Celtic Tiger and the subsequent economic downturn that we find ourselves in, finding ways to participate in activities that does not impact on our bank balances has become more important. The Irish uplands provide opportunities to experience both of these variables. With very little outlay people can spend hours immersed in their activity in the Irish uplands while partaking in Physical Exercise at the same time.

5.4.5 Escape

The vast open landscape of the Irish uplands provides individuals with opportunities to Escape from their everyday lives and allows recreationists to immerse themselves within the beauty of the natural environment. The Irish uplands can cater for those who are motivated by a need to avoid stimulation, seek solitude, avoid social contacts and seek calm conditions (Lauterbach & Kozak, 1998), while at the same time enabling others to participate in a recreational activity that enables the individual to rest and unwind (Beard & Ragheb, 1983).

The motivational factor Escape is important for all of the land based recreationists in the Irish uplands with an average mean of 11.55 (\pm SD 2.38) from a maximum mean of 15.00. The findings from this study show recreationists in the Irish uplands that visit the uplands for the purpose of Strolling and Rambling are the recreationists most motivated by the need to Escape with average means of 12.02 (\pm SD 2.02) and 11.84 (\pm SD 2.48) respectively. Climbers and Mountaineers are least motivated by the motivational factor Escape with average means of 10.50 (\pm SD 2.34) and 10.60 (\pm SD 2.17) respectively. The results showed that a significant ($p=0.000$) negative relationship ($r= -0.209$) exists between the motivational factor Escape and the difficulty level of the activity. Thus showing that as the difficulty level of the activity increases the less important the motivational factor Escape becomes.

These results are consistent with the research of McIntyre and Roggenbuck (1998) who found that individuals who are motivated by the need to escape and get away from everyday life situations are more likely to engage in passive activities such as Strolling. McIntyre and Roggenbuck (1998) reported that those who seek solitude, experience timelessness and become more at one with the environment.

The high levels of importance for the motivational factor Escape across all of the recreational activities in this study support the view of Lengkeek (2001). According to Lengkeek (2001), all individuals need to get away from everyday life situations to experience their innate identity (Lengkeek, 2001). Lengkeek (2001) and Kruger and Saayman (2010) suggested that the motivation to disassociate from everyday life is dominated by the need to reenergise. Each individual has their own way of recharging energy levels. Some individuals prefer their own solidarity, whilst others prefer to experience with others (Raadik, *et al.*, 2010).

Borrie and Roggenbuck (2001) and Pohl *et al.*, (2000) suggested that as an individual enters sites seeking solitude, they discard many of the concerns of their everyday life situations. As recreationists enter locations in the Irish uplands, such as the Knockmealdown Mountains, they adjust and adapt themselves to the experience and demands of the environment. This immersion within the environment and the activity enables the recreationists to put to one side all of the stresses of home and work life and become at one with nature. The ability of the Irish uplands to provide a means to experience Escape regardless of activity choice and ability level accounts for the high levels of Escape across all land based recreational groups.

5.4.6 Social

Unlike many leisure activities, upland recreation can be structured in a way that it requires the presence of others (Rock Climbing), or it can be undertaken by oneself (Strolling, Rambling, Hill Walking etc). The benefit of participating with others is that it allows the recreationist the opportunity to define their perceived interpersonal competence, while also providing the recreationists with an opportunity to share their experience with others.

While not the main motivation for participation, the average mean score of 9.17 (\pm SD 3.14) out of a maximum of 15.00 indicates the importance the motivational factor Social

for all upland recreationist. Social has the greatest importance for Mountaineers and Climbers with average means of 10.20 (\pm SD 2.97) and 9.80 (\pm SD 2.80) and the least importance for Strollers (mean of 8.37, SD 3.37) and Ramblers with average means of 8.37 (\pm 3.37) and 8.02 (\pm SD 3.34) respectively.

The results from this study support the findings of numerous studies (Ewert, 1993; Ewert & Heywood, 1991; Ewert & Hollenhorst, 1989; Iso-Ahola, 1980; Pohl, *et al.*, 2000; Slinger & Rudestam, 1997) which concluded that social interaction is a strong and unambiguous motive for participation in outdoor recreation, with the development of close friendships and cooperation with others scoring high responses.

Indeed, the raised importance for the motivational factor Social among Climbers and Mountaineers by Ewert (1993) and Borrie and Patterson (2001) highlights the importance of social interaction, trust and friendship among activities that have an increased risk element. The recreationists need to be confident that they can rely on their companions in case an unforeseen event (accident, injury etc) occurs.

Despite the motivational factor Social being the least important factor for Strollers (mean of 8.37, SD 3.37) and Ramblers (mean of 8.02, SD 3.34) the mean scores suggest that it is still an important factor for participation in land based activities in the Irish uplands. For recreationists in the Irish uplands, the motivational factor Social is consistent with recreationists in other parts of the world. According to Ewert (1993), the motivational factor Social scored a mean of 53.47 out of a maximum score of 100 for mountaineers in the Himalaya's. Young *et al's.*, (2000) study found that the motivational factor Social Aspects scored a mean of 5.9 (\pm SD 2.0) out of a maximum score of 10.00. Kim *et al's.*, (2003) study on upland recreationists in Korean national parks found that the motivational factor Social rated as a high contributor factor of participation in upland recreation with a mean score of 3.27 (SD 1.03, range 1-5).

Regardless of the activity choice, upland recreationists in Ireland realise the importance of social interaction. The vast open landscape of the Irish uplands provides an ideal base for friendships and companionships to develop with seldom interruptions from the outside world.

5.4.7 Nature/Environment

The Irish uplands are becoming increasingly popular with both local people and tourists alike with over two million visitors in 2008 people flocking to discover and explore the beauty of the Irish uplands. Through the designation of National Parks and wilderness areas, accessibility to these locations and sites is becoming increasingly easier to accommodate large numbers of people. Natural landscapes such as the mountains of the MacGillycuddy Reeks and the lakes of Glendalough can provide people with a means to experience the best of the Irish upland landscape.

This study found that the motivational factor Nature/Environment is the main reason that visitors participate in land based recreation in the Irish uplands, with an average mean of 12.27 (\pm SD 2.58) out of a maximum of 15.00. Nature/Environment was the most important motivational factor for Strollers, Ramblers, Trekkers and Hill Walkers with means of 12.93 (\pm SD 2.20), 12.84 (\pm SD 2.11), 13.27 (\pm SD 1.48) and 12.42 (\pm SD 2.55) respectively. While not the most important motivational factor for Climbers and Mountaineers, with means of 10.52 (\pm SD 2.83) and 12.50 (\pm SD 1.58), the high mean scores reflect the importance that Nature/Environment has on participation in land based recreational activities in the Irish uplands.

The findings from this study are consistent with the research of Young *et al.*, (2002), Ewert (1993), Kim *et al.*, (2003) and Borrie and Roggenbuck (2001). In two separate studies on outdoor recreation participation in the United States Young *et al.*, (2002) and Ewert (1993) found that the motivational factor To Experience Nature and Being Close to Nature was the main reason for participation with average means of 7.40 (\pm SD 1.4 out of a maximum of 10.00) and 72.70 (out of a maximum of 100.00). Similarly, Kim *et al.*, (2002) found that visitors to Korean national parks were motivated to participate in outdoor recreational activities due to the Natural Recourses and Observing Wildlife with average means of 3.19 (\pm SD 0.66) and 2.38 (\pm SD 1.13) out of a maximum mean score of 5.00.

Research by Borrie and Roggenbuck (2001) found that walkers on long distance walking routes in the Scottish Highlands immerse themselves into the environment as the duration and intensity of the experience increases. The research by Borrie and Roggenbuck (2001) is consistent with the findings of this study which found that the

most important motivational factor reported by trekkers in the Irish uplands is Nature/Environment, with a mean score of 13.47.

The high mean score for the motivational factor Nature/Environment demonstrates the importance of the Irish uplands in the lives of many people. Seen as the main reason for participation, the value of the Irish uplands cannot be simply valued by economic terms. According to Kaplan and Kaplan (1989), and Kearsley (2000, cited in Pigram and Jenkins, 2006), human's prefer to participate in recreation in a natural setting to experience the openness, lack of structure and transparency as well as to experience the scenic beauty/ naturalness that the uplands provide an abundance of.

Unlike some countries, the extensive Irish landscape provides opportunities for land based recreationists throughout Ireland to be at one with nature within a one or two hour drive with the heavily populated cities of Dublin, Cork, Limerick and Galway surrounded by the Irish uplands. Indeed, the importance of the Irish countryside close to populated cities was evident in the designation of the Wicklow Mountains as a National Park status. Located just an hour's drive from Dublin City, the Wicklow Mountains National Park allows people to immerse themselves in nature and at a low financial cost. This study also found that female visitors to the Irish uplands are more motivated by the splendour of the Irish landscape than their male counterparts. This is consistent with the research by Reed *et al.*, (2004) who found that 62% of females use recreational trails in Southern California to be in a natural environment.

5.4.8 To Learn

There is much to be learnt and discovered in the Irish uplands which are awash with flora and fauna and, cultural and historical sites. There is much to discover in the uplands whether it is just for your own curiosity and knowledge or for academic purposes.

The findings of this study show that the motivational factor To Learn is not as important as some of the other motivational factors. With an average mean of 7.75 (\pm SD 2.69) out of a maximum mean score of 15.00, the findings from this study suggest that people visit the Irish uplands to gain experiences other than To Learn. Mountaineers scored the

highest mean for the motivational factor To Learn with an average mean of 9.40 (\pm SD 2.32), while Rambling scored the lowest score with a mean of 6.80 (\pm SD 2.36).

The findings from this study are consistent with the study by Bergin and O'Rathaille (1999) found that approximately forty percent of foreign visitors and approximately thirty percent of Irish visitors reported visiting the Irish uplands for the purpose of Studying Nature and/or Wildlife. The same study also found that approximately twenty per cent of Irish visitors and fifty per cent of foreign visitors choose to visit the Irish uplands for the purpose of Visiting Historical and/or Cultural sites (*ibid*).

While not the main contributing motivational factor that respondents gave for participating in land based upland recreation activities, a positive trend emerged ($r=0.265$) within the activities and their average mean scores. This is consistent with the research of Ewert (1993) who found that mountaineers in the Himalayas were motivated to participate in mountaineering to enable them To Learn and Develop New Skills (mean of 63.89, range 10-100). Similarly, the motivational factor To Develop New Skills rated highly (mean of 7.2, SD 1.5, range 1-5) among outdoor recreationists in Young *et al's.*, (2002) study.

Unlike the other four recreational activities (Strolling, Rambling, Trekking and Hill Walking) Climbing and Mountaineering require the participants to learn a number of skills and safety procedures to ensure their own, and others, safety while climbing in the mountains due to the increased risk potential involved in these activities. This would support the higher mean scores for the motivational factor To Learn as skills have to be learnt, practiced and developed to ensure the safety of all involved.

The Irish uplands provide the means for people To Learn and experience new things each time they visit. For recreationists in the Irish uplands the way To Learn new things is not only derived from engaging in many of the courses developed to increase climbing, mountaineering or navigation skills, or simply calling into tourist information centres that provide leaflets and documents about the Irish uplands, but the learning takes place in the doing. By actively being out in the Irish uplands provide recreationists with opportunities To Learn new and exciting new things whether it is learning a new walking route, footpath or trail or using a new navigation system, the uplands provide one constant learning path for even the most experienced recreationists.

5.4.9 Challenge

The diversity of the Irish uplands provides recreationists with opportunities to engage in activities that are as challenging or as relaxing as one requires. Participation levels can range from activities that require little or no challenges (Strolling and Rambling) to activities that are full of challenges, both physically and psychologically (Climbing and Mountaineering).

This study found that motivational factor Challenge is important for land based recreationists in the Irish uplands with an average mean of 9.63 (\pm SD 3.32) out of a maximum mean score of 15.00. The motivational factor Challenge has the most importance for Climbers and Mountaineers with average means of 12.14 (\pm SD 2.62) and 11.80 (\pm SD 2.32) respectively, while Strolling and Rambling have the lowest motivational importance, with average means of 7.56 (\pm SD 3.19) and 7.98 (\pm SD 2.98) respectively.

These findings are consistent with the research of Todd *et al.*, (2000) and contradict the findings of Young *et al.*, (2002) who studied the motivations of outdoor recreation participation in the United States. Todd *et al.*, (2000) found that outdoor recreationists in Pennsylvania are motivated by the Challenge of the activity, engage in activities that test their skill and abilities levels (mean of 3.0, SD 1.14, range 1-5). In contrast Young *et al.*, (2002) found that outdoor recreationists in Cortland participated in upland activities for the Challenge of the Activity (mean of 7.7, SD 1.3, range 1-10). Similarly, Ewert's (1993) study found that mountaineers are motivated by the need to be Physically and/or Emotionally Challenged (mean of 68.00, range 10-100) by Testing Themselves to the Limit (mean of 63.63).

The findings from this study also show that a significant ($p=0.00$), positive trend ($r=0.442$) has emerged between the motivational factor Challenge and the difficulty level of the activity. These findings are consistent with the research Csikszentmihalyi and Csikszentmihalyi (1999).

Csikszentmihalyi & Csikszentmihalyi (1999), who studied the motivations of participants involved in adventure recreation participation in the United States, suggested that when an individual participates in an activity that is both physically and

psychologically challenging the individual is required to use learnt knowledge and skills previously acquired. As the individual becomes immersed in the activity, the individual will experience 'flow' (*ibid*). The very nature of Climbing and Mountaineering in the Irish uplands provides complex and dynamic challenges to the recreationists. Thus, the experience of completing successful challenges allows the individuals to experience personal growth and discovery (Csikszentmihalyi & Csikszentmihalyi, 1999; Plummer, 2009).

The findings from this study found that participants of land based recreation in Ireland are motivated by the Challenge of their upland activity regardless of the difficulty level of the activity. Naturally the nature of the Challenge varies from person to person and is influenced by skill and experience levels.

In the Irish uplands, individuals can challenge themselves by simply walking a harder/longer/steeper route to climbing a frozen waterfall in winter. For some, a two mile walk around Glendalough will be challenging, while other may seek to climb to the top of Carrantuohill in winter while the mountain is covered with snow and ice. The nature of the Challenge and the level of Challenge that an individual places upon themselves will vary depending upon each participant. Regardless of the nature of the Challenge Borrie and Roggenbuck (2001) and Breejen (2007) suggested that the recreationists will experience an expected sense of achievement on completion of the designated challenging route. Thus, the Irish uplands provides opportunities for land based recreationists to undertake challenges which enable them to experience self discovery and enhance their self-concept (Kaplan & Kaplan, 1989).

5.4.10 Reward

The lowest average of all of the motivational factors with an average mean of 4.59 (\pm SD 2.34) out of a maximum mean score of 15.00, Reward is the motivational factor that has the least significance on the decision making process of land based recreationists in the Irish uplands. Reward had the most importance for Mountaineers with an average mean of 5.30 (\pm SD 3.09), while it had the least importance for Strollers with an average mean of 4.19 (\pm SD 2.49). Despite the low scores, a significant ($p=0.000$) positive trend ($r=0.204$) for the motivational factor Reward emerged from the study. With the

exception of Rambling, the results showed that as the difficulty and skill level of the activity increased the importance of Reward also increased.

The findings from this study are consistent with the studies of Ewert (1993), Young *et al.*, (2002) and Todd *et al.*, (2000) who all found that the motivational factor Reward had the least significance of any motivational factors on outdoor recreation participation in the United States. With the motivational factor Reward having an average mean of 23.89 from a possible maximum mean of 100.00 in Ewert's (1993) study. While Young *et al.*, (2002) and Todd *et al.*, (2000) reported low mean scores of 1.8 (\pm SD 1.8) and 2.1 (\pm SD 1.1) respectively both from a possible maximum score of 5.00.

Unlike sports participation, where there is a strong focus on winning, participation in outdoor recreation in the Irish uplands has its own rewards. According to Ewert (1993), the reward of participation in outdoor recreation can be both externally focused (e.g. recognition from others) and internally driven. For some, participation in outdoor recreation is intrinsically driven (e.g. to learn a new climbing technique or to walk further than the previous visit) and unlike sports participation (where the aim to beat an opponent), the reward can be different for every recreational outing (e.g. reaching the summit of Caurauntohill, completing a designated walk around the Comeragh Mount and learning a new climbing technique in Ballykeefe Quarry).

5.5 Level of Involvement

Like with many recreational activities the Level of Involvement that an individual has with their activity varies from person to person. The findings from this study found that Strollers have the lowest Level of Involvement with their activity with an average mean of 9.62 (\pm SD 3.65) out of a possible maximum mean score of 25.00, while Mountaineers have the greatest Level of Involvement with their activity with an average mean of 21.40 (\pm SD 2.63). This study also found that a significant ($p=0.000$), positive trend emerged ($r=0.584$) between the recreational activities and their Level of Involvement with their activity. This suggests that land based recreationists in the Irish uplands become more involved in their activity the more difficult the activity becomes.

These findings are consistent with the research of Ewert (1993) and Kaye and Moxham's (1996). Both Ewert (1993) and Kaye and Moxham (1996) found that recreationist, in the United States and England respectively, have greater Levels of Involvement in their activity as the activity difficulty and skill level required to participate in that activity increases.

This study also found that recreationists in the Irish uplands who are members of clubs or organisations (e.g. Mid Tipp Hill Walkers and Mountaineering Ireland) have greater Levels of Involvement in their recreational activity than non club members. These findings are consistent with the findings of Ewert (1985, 1993, 1994) and Ewert and Hollenhorst (1989) who found that serious Climbers and Mountaineers have a strong, deep-seated need for arousal, self determination, individualism and autonomy and are likely to be members of national organisations (such as Mountaineering Ireland) but are less likely to be members of local walking clubs

Level of Involvement for land based recreationist in the Irish uplands requires the recreationists to not only commit more time and effort to their chosen activity but also it requires a greater financial cost as well. As upland recreationists progress from Strollers to Ramblers and then to Trekkers and Hill Walkers, the more equipment (walking boots, rain jackets/trousers, rucksack, navigation systems etc.) is needed and attendance on a number of training courses becomes more important to ensure the safety of the recreationists. Such training courses include Mountain Skills and Mountain Leader training courses. These courses, which are run under the guidance of Mountaineering Ireland, provide recreationists with the tools and skills needed to tackle long distance walking routes.

The Single and Multi Pitch Award for climbers takes place over a number of weekends and requires the recreationists to go away and develop their skills over a number of months prior to assessment. Not only are there financial costs to undertaking such courses but the time commitment is huge. It is therefore no surprise that land based recreationists in the Irish upland have greater Levels of Involvement in their activity as the difficulty and skill level of the activity increase.

5.6 Perceived Identity

According to Breejen (2007, p.1422) the Perceived Identity of recreationists is “a reflection of the respondents’ perceived ability and involvement in the activity”. Based upon the recreationist’s Level of Involvement in their chosen upland activity, the levels of their perceived ability in their activity should also increase (Breejen, 2007).

This study found that there was no difference ($p = 0.121$) or relationship ($r = -0.074$) between the Level of Involvement of upland recreationists in Ireland and their perceived ability levels in their activity, thus supporting the findings of Breejen (2007). According to Breejen (2007), recreationists choosing to walk the West Highland Way in Scotland have similar Perceived Identity levels irrespective of their Level of Involvement in long distance walking.

This study also found that the personality ($p > 0.05$) and the motivations ($p > 0.05$) of land based recreationists in the Irish uplands does not have any bearing on the Perceived Identity of the recreationist which is consistent with the findings of Breejen (2007, p. 1424) who found that “respondents display no significant difference with regards to factors that influence their motivation”.

The findings from this study have shown that female (mean of 18.55, SD 3.07) upland, land based, recreationists have significantly ($p=0.000$) higher levels of Perceived Identity with their activity than males (mean of 17.63, SD 3.20). Similarly, activity choice ($p=0.118$, $r = -0.0029$) and club membership ($p= 0.335$) has no bearing on the Perceived Identity of the upland recreationists in the Irish uplands. As the research by Breejen (2007) focused on long distance walkers on the West Highland Way in Scotland no comparison can be made with regards to gender, activity choice and club membership with regard to their Perceived Identity levels.

Chapter 6

Conclusion

6.0 Conclusion

Blessed with such a diverse landscape, accessible to the majority of people on the Irish shores within a two hour drive, the Irish uplands offer people the opportunity to explore the splendour of Ireland's lands regardless of age, skill and ability level or choice of activity. With the numbers of people visiting the Irish uplands for recreational purposes the value of the uplands has never been more relevant.

This study examined the influence that Personality Traits and Motivational Factors have on participation in land based recreational activities in the Irish uplands and how these factors influence a recreationist's Level of Involvement and Perceived Identity for their activity.

This study found that those who participate in land based recreation in the Irish uplands all have similar personality characteristics, regardless of activity choice and skill level. All upland recreationists are; open to new experiences, conscientious of the world around them, easy to get along with and of compromising natures, remain calm under pressure, and are Extraverted individuals capable of spontaneous participation in recreational activities.

To gain a greater understanding to why these people choose to participate in recreational activities in the Irish uplands, this study examined what it is that motivates them to participate. All recreationists in the Irish uplands were highly motivated by; being immersed in Nature and the natural Environment of the Irish uplands, being involved in an activity that provides an opportunity to Escape from their everyday lives and engaging in an activity that enables them to participate in Physical Exercise. The only motivational factor which had low importance levels for the recreationists was the motivational factor Reward.

Crucially, this study identified what it is that motivates people to recreate in specific upland activities, thus enabling policy makers and planners in the fields of health and tourism the opportunity to maximise the potential of these activities. By understanding what it is that motivates people to participate in a specific activity, it is easier to target (and entice) more people to participate in said activities by providing relevant (and sustainable) facilities and services in areas where these activities are most popular, providing long term benefits to the participants physical and psychological wellbeing.

People participate in many activities in the Irish uplands. This study examined six of these; Strolling, Rambling, Trekking, Hill Walking, Climbing and Mountaineering. Apart from being immersed in Nature and for Physical Exercise, Strollers, Ramblers, Trekkers and Hill Walkers reported that they participate in their activities to provide themselves with opportunities to Escape from their everyday lives and to participate in an activity that offers them an opportunity to experience an Adventure.

Both Climbers and Mountaineers reported that the main reason for their participation was to Challenge themselves in the quest to experience an Adventure. Climbers were more motivated by the Physical Exercise involved in their activity, while Mountaineers placed more emphasis on the importance of being immersed in Nature and the Natural Environment. Unlike participants of sporting activities (Bull, 2004) upland recreationists in Ireland are least motivated by the potential of a Reward (either financial, recognition or status).

Throughout Ireland there is an abundance of Hill Walking, Climbing and Mountaineering clubs at both local and national level providing opportunities for people who have similar interests to meet up and/or gain more experience and qualifications in their chosen fields. This study found that those who become members of these clubs have stronger motivations and affiliations for participation in their activity than non club members. It also found that females are motivated by the need to Escape and be closer to nature than their male counterparts.

While there was no difference, or relationship, between the recreationists' Level of Involvement and their Personality or Gender, Climbers and Mountaineers are more involved in their activities than the recreational groups, while Strollers were significantly less involved in their activity than all of the other recreational groups. It is important to note that the greater the requirement for increased skill and/or ability level of the activity, the more involved in the activity the recreationists in the Irish uplands become. What was also evident is that Club Members involved in land based recreational activities in the Irish uplands are more involved in their activity than Non Club Members.

Females recreating in the Irish uplands have significantly greater levels of Perceived Identity than their male counterparts but no other difference was found between the

recreationist's Perceived Identity and their activity choice, Personality Traits, Motivations or Level of Involvement.

This study highlights the importance of the environment and the natural landscape of the Irish uplands to the lives of people within these shores. What is also evident is that the people who participate in land based recreational activities all have similar personality traits but vary in their motivations for participation depending on the activity that they are engaged in.

The findings from this study can have useful implications for; policy makers in the fields of health and tourism, park managers, researchers and those in the retail and tourism industry who are interested in providing products and services for upland recreationists in Ireland. Knowing what motivates people to participate in land based recreation in the Irish uplands enables those in the recreation and tourism industries to market what they have to offer these people, while also enticing more people to get involved.

6.1 Recommendations for Future Research

1. As the last research conducted on the motivations of land based recreationist in the Irish uplands was in 1999, and no know study has been previously been conducted to establish their personality traits and level of involvement, this study needs to be confirmed in order to get a better picture of who they are and what motivates them,
2. Future research should focus on examining what it is about the natural landscape of the Irish uplands that makes them so appealing,
3. Research should be conducted, in the tourism context, to delve into the motivations of visitors to the Irish uplands, from both Ireland and overseas, to establish whether any fundamental differences exist between the upland recreationists and upland tourists.

With the ever increasing number of visitors to the Irish uplands it is essential to further investigate and establish who these people are to be able to cater for them in a structured and sustainable way, in order to capture both the economic and health benefits accruing and yet retain the natural integrity of the environment.

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Appendix A

Ethical Approval

Appendix B

Survey Instrument

For official use only
Date:
Location:
Weather:
Observations:



Waterford Institute of Technology

The purpose of this questionnaire is to study why people chose to participate in leisure activities in the outdoors. Please answer all questions as honestly as you can as they relate to you. Please take your time to answer all the questions, and if you have any issues please do not hesitate to ask.

Section A: Profile question (please tick the box that applies to you).

1. Age: 18 – 25 26 – 35 36 – 45 46 – 55 56 – 65 65 +
2. Gender: Male Female

Section B: Activity

1. Your normal or most frequent activity in the uplands: (Tick one only)

- 1. Strolling
- 2. Rambling
- 3. Hill Walking
- 4. Trekking
- 5. Climbing
- 6. Mountaineering
- 7. Other Please specify

2. Which activity (from the above list) are you engaged in today? _____

3. Are you a member of a club or organisation? Yes No

If yes please specify

Section C: Level of involvement (please circle the number that best represents your activity today)

1. Is this type of activity...

Easy and casual 1 2 3 4 5 Strenuous

2. Is this type of activity suitable for...

Mixed ability groups 1 2 3 4 5 Committed only

3. Is this type of activity....

Spontaneous Participation 1 2 3 4 5 Requires planning

4. Is this type of activity...

Relaxing and sociable 1 2 3 4 5 Challenging and rewarding

5. Is this type of activity a...

Mainstream activity 1 2 3 4 5 Minority activity

Section D: Perceived Identity

Please circle a number to indicate how you identify yourself as a participant of recreation in the uplands:

Occasional 1 2 3 4 5 6 7 Frequent

Serious 1 2 3 4 5 6 7 Casual

Experienced 1 2 3 4 5 6 7 Inexperienced

Because of others 1 2 3 4 5 6 7 Because I want to

Section E: Motivation (Please rate your reason for engaging in your chosen activity **today**)

| | Not at all Important | | | Extremely Important | |
|---|-------------------------|---|---|------------------------|---|
| | 1 | 2 | 3 | 4 | 5 |
| 1. For the adventure of it | 1 | 2 | 3 | 4 | 5 |
| 2. To explore things | 1 | 2 | 3 | 4 | 5 |
| 3. Because it is stimulating and exciting | 1 | 2 | 3 | 4 | 5 |
| 4. To get exercise | 1 | 2 | 3 | 4 | 5 |
| 5. To keep physically fit | 1 | 2 | 3 | 4 | 5 |
| 6. To feel good after being physically active | 1 | 2 | 3 | 4 | 5 |
| 7. For relaxation | 1 | 2 | 3 | 4 | 5 |
| 8. For a change from everyday life | 1 | 2 | 3 | 4 | 5 |
| 9. To experience peace and tranquillity | 1 | 2 | 3 | 4 | 5 |
| 10. To have a close interaction with others | 1 | 2 | 3 | 4 | 5 |
| 11. To be part of a group or team | 1 | 2 | 3 | 4 | 5 |
| 12. For the friendship | 1 | 2 | 3 | 4 | 5 |
| 13. To enjoy the scenery | 1 | 2 | 3 | 4 | 5 |
| 14. To be close to nature | 1 | 2 | 3 | 4 | 5 |
| 15. To be in a natural setting | 1 | 2 | 3 | 4 | 5 |
| 16. To learn more about the environment | 1 | 2 | 3 | 4 | 5 |
| 17. To study geological formations | 1 | 2 | 3 | 4 | 5 |
| 18. To develop my climbing skills | 1 | 2 | 3 | 4 | 5 |
| 19. To be physically/emotionally challenged | 1 | 2 | 3 | 4 | 5 |
| 20. For the exhilaration | 1 | 2 | 3 | 4 | 5 |
| 21. To test my abilities | 1 | 2 | 3 | 4 | 5 |
| 22. For status among my peers | 1 | 2 | 3 | 4 | 5 |
| 23. For my image in society | 1 | 2 | 3 | 4 | 5 |
| 24. For my job/career | 1 | 2 | 3 | 4 | 5 |

Section F: Personality

Here are a number of personality traits that may or may not apply to you. **Please circle a number** next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

| I see myself as... | Disagree strongly | Disagree moderately | Disagree a little | Neither agree or disagree | Agree a little | Agree moderately | Agree strongly |
|----------------------------------|-------------------|---------------------|-------------------|---------------------------|----------------|------------------|----------------|
| Extroverted, enthusiastic | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Critical, quarrelsome | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Dependable, self disciplined | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Anxious, easily upset | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Open to new experiences, complex | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Reserved, quiet | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Sympathetic, warm | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Disorganised, careless | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Calm, emotionally stable | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Conventional, uncreative | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Appendix C

Survey Instrument Scoring Mechanism

Scoring Mechanisms for the Survey Instrument

Section C – Level of Involvement Scoring Mechanism

Based upon Kaye and Moxham's (1996) study, level of involvement was measured by scoring the results of the five variables. Each variable scores from 1 to 5. The score from each of the 5 variables is totalled resulting in a value for level of involvement which ranges from 5 to 25. Those who have low levels of involvement in their activity scoring low scores of 5 to 11, those who had moderate levels of involvement scoring 12 to 18, while those who have high levels of involvement in their recreational activity scoring 19 to 25.

Section D – Perceived Identity Scoring Mechanism

Section D of the questionnaire comprised of four questions using a seven point Likert scale developed by Breejen (2007) which categorised individuals into three groups ('beginner', 'intermediate' and 'advanced') based on their perceived experience status. It is a reflection of the respondent's perceived ability and involvement in the activity as no standardised measure had been adopted to define the level of experience (Breejen, 2007). By scoring question one and four with a maximum score of 7 and minimum score of 1 and reverse scoring (recoding a score of 1 with a 7; 2 with a 6; 3 with a 5; 4 stays the same; 5 with a 3; 6 with a 2; and 7 with a 1) questions two and three the individuals can then be categorised into each of the three groups based upon their overall score (maximum score = 28, minimum score = 4) where the upper and lower four indices are comprised of experienced and beginner respectively (Breejen, 2007).

Section E – Motivation Scoring Mechanism

In order to score the items for Section E of the questionnaire, each response was given a score from 1 (Not at all Important) to 5 (Extremely Important). Each motivational factor was comprised of three questions (questions; 1-3 = Adventure, 4-6 = Physical Exercise, 7-9 = Escape, 10-12 = Social, 13-15 = Nature/Environment, 16-18 = To

Learn, 19-21 = Challenge, 22-24 = Reward), therefore each of the six categories will have a minimum score of 3 and a maximum score of 15.

To score the motivation scale

- To establish the scores for the individual categories, take each motivation category (e.g. Adventure) and add the scores for the three items in that variable (e.g. $2+3+3=8$).
- Total Motivation was scored by adding the scores of each of the six categories (Adventure, Physical Exercise, Escape, Social, To Learn, Challenge and Reward) which resulted in a Total Motivation score ranging from 18 to 90.

Section F – TIPI Personality Scoring Mechanism

The TIPI requires subjects to rate, using a seven point Likert Scale, if they ‘Disagree Strongly’, ‘Agree’ or ‘Agree Strongly’ to ten statements. Scores for each factor will range from 2 – 14. The TIPI examines the five personality traits of the Big Five Inventory Scale scores namely, Extraversion (questions 1 and 6), Agreeableness (questions 2 and 7), Conscientiousness (questions 3 and 8), Neuroticism (questions 4 and 9) and Openness to Experience (questions 5 and 10). The measurement of the personality traits requires adding the scores for each of the five personality traits (each trait will have two scores, with one reverse score question for each personality trait – note that reverse scoring is used for questions 2, 4, 6, 8 and 10).

To score the TIPI:

- Recode the reverse-scored items (items 2,4,6,8, & 10). Recode a score of 7 with a 1; a score of 6 recodes to 2; 5 recodes to 3; 4 stays the same; 3 recodes to 5; 2 recodes to 6 and 1 recodes to 7.
- The value of each item of the scale (Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) is the average (add up the scores of the two items and divide that score by 2) of the two items (both the standard item and the recoded reverse-scored item) that make up each scale.

Appendix D

Photographs of the Irish Uplands Survey Locations

Lough Tay – County Wicklow



The view from the roadside of the Upper Lake –Lough Tay in the Wicklow Mountains



The path to the Wicklow Mountains



The Wicklow Way heading into the forest

The Vee – Knockmealdown Mountains

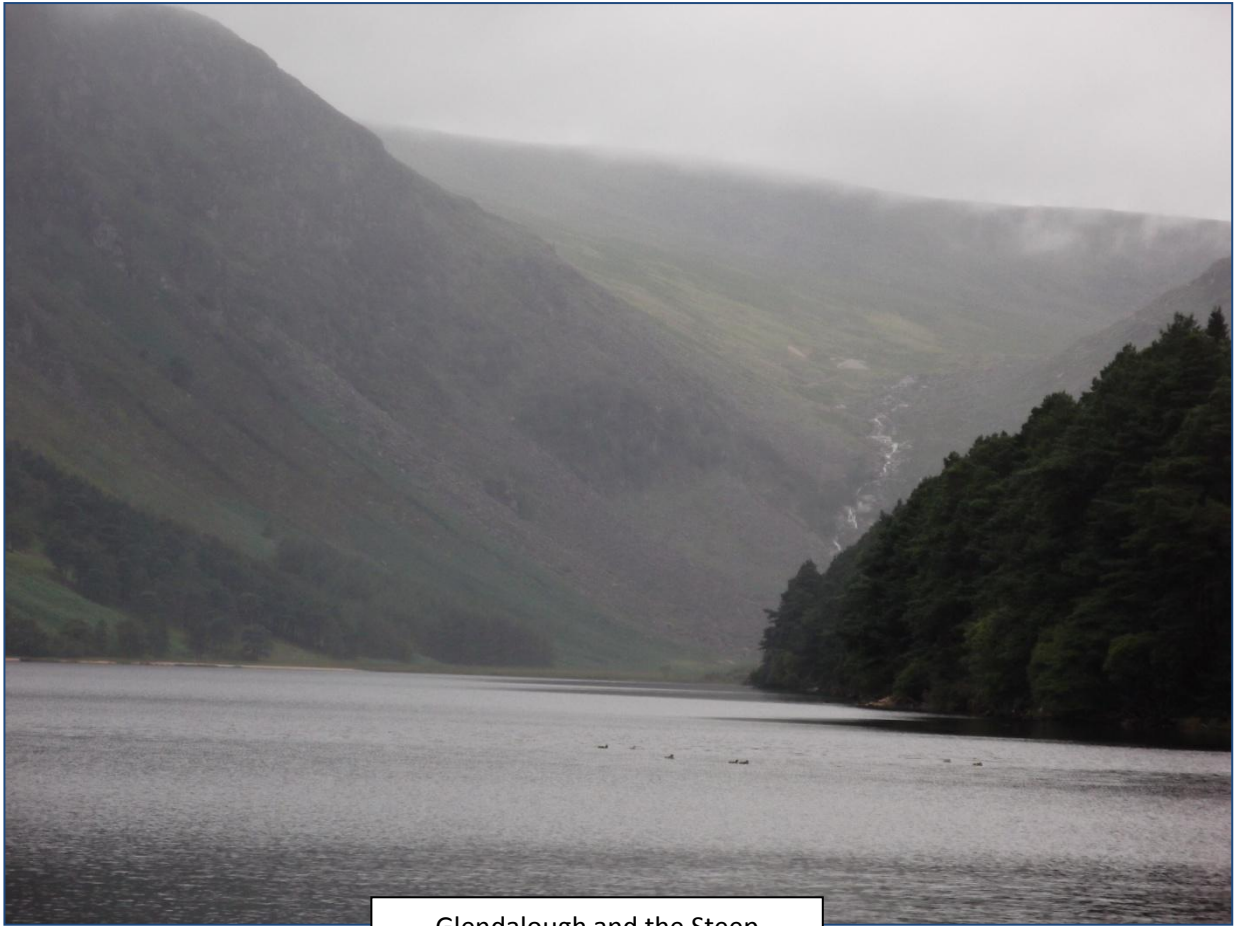


The Vee in the Knockmealdown Mountains

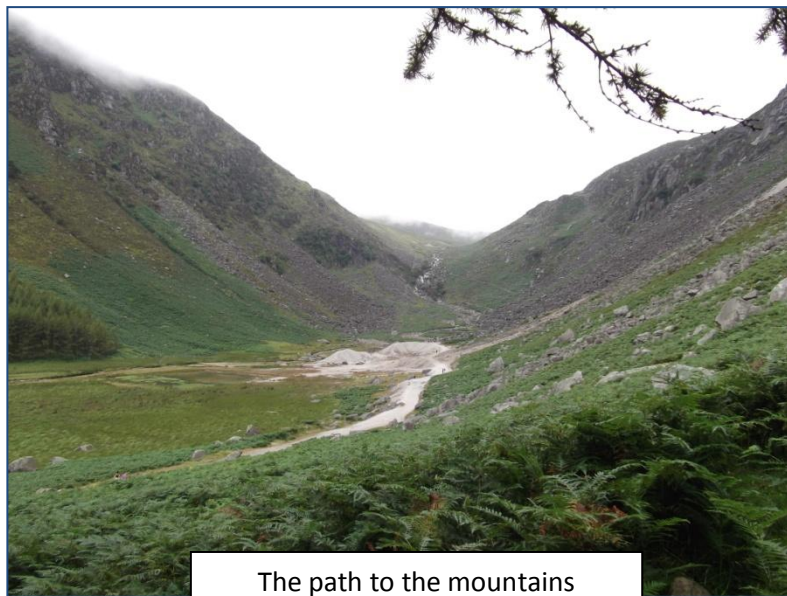


Sign post for the East Munster Way footpath in The Knockmealdowns

Glendalough – County Wicklow



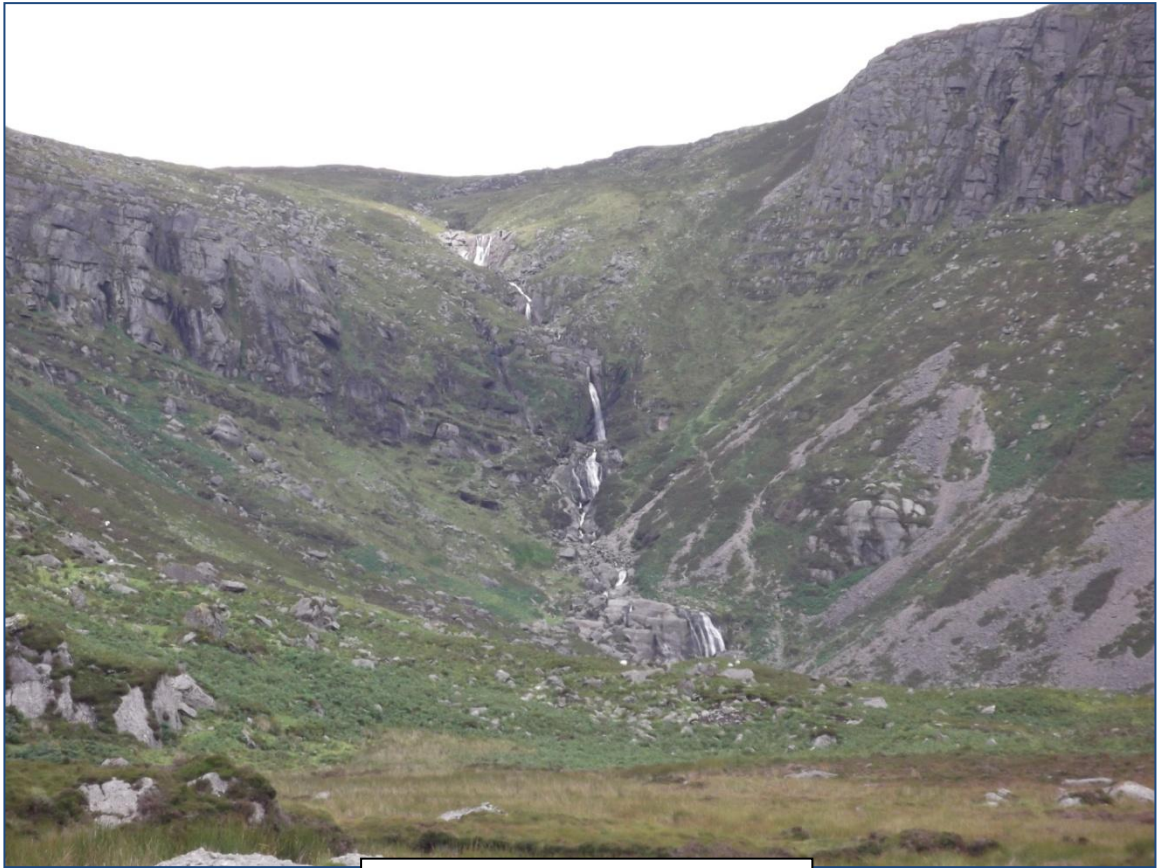
Glendalough and the Steep
Mountainside



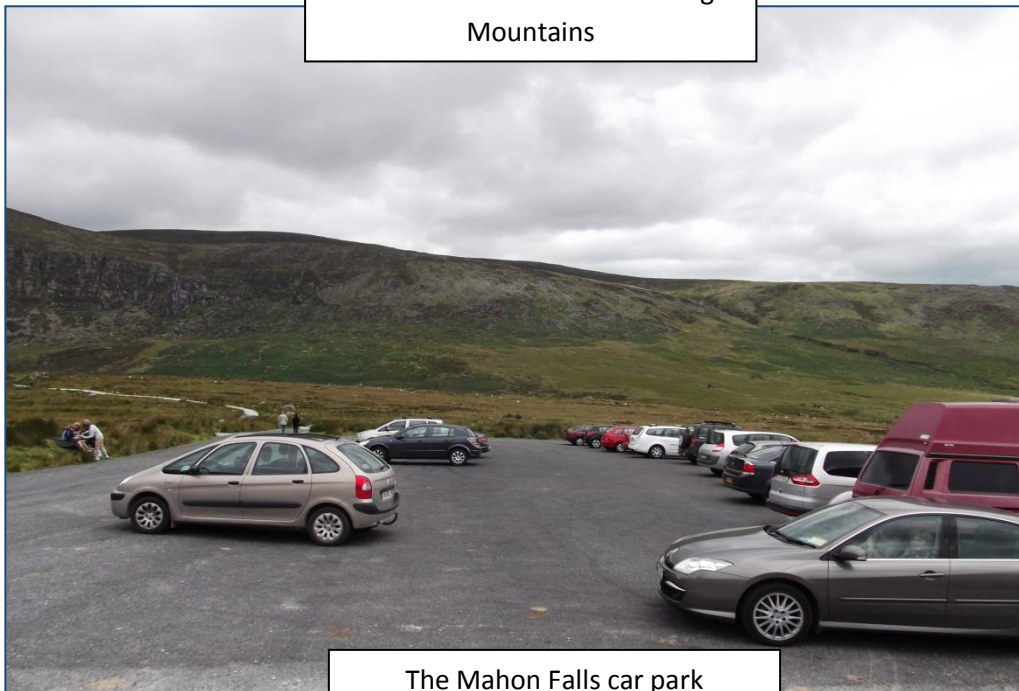
The path to the mountains

The Comeragh Mountains

The Mahon Falls



The Mahon Falls in the Comeragh Mountains



The Mahon Falls car park

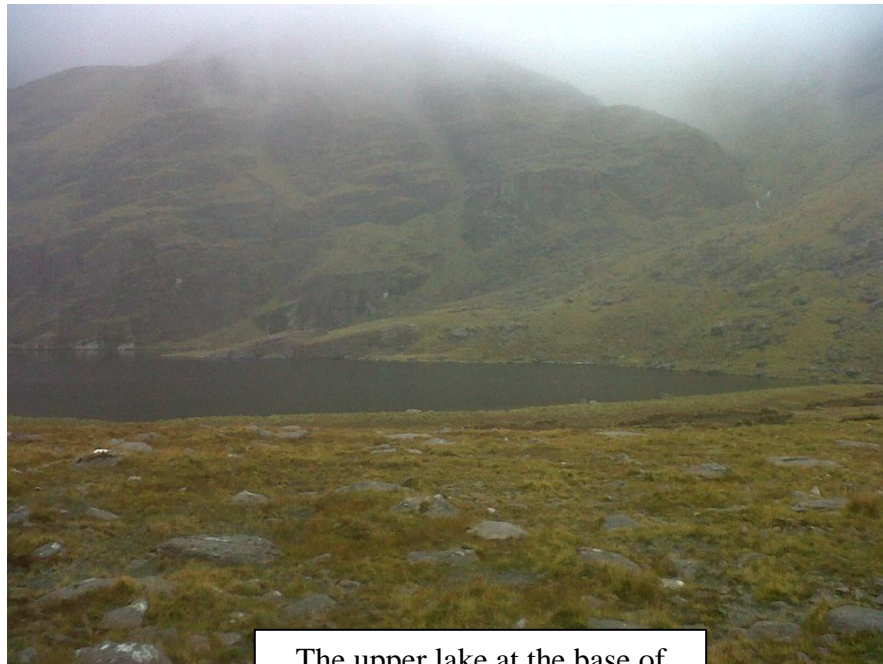
Rock Climbing in Ballykeeffe Quarry - Kilkenny



A Group Rock Climbing in
Ballykeeffe Quarry



Carrantuohill Mountain in the MacGillycuddy Reeks in County Kerry



The upper lake at the base of Carrantuohill



Lisleibane Car Park. The starting point to summit Carrantuohill.

