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**THE CURRENT STATE OF OUTDOOR ACTIVITY PROVISION IN
WALES**

By Calum Muskett

Thesis submitted to Bangor University in fulfilment of the requirements for the Degree of
Masters by Research at the School of Sport, Health, and Exercise Sciences, Bangor
University.

July 2019

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THESIS ABSTRACT

Outdoor activity tourism in Wales is booming, contributing up to 6% of the Welsh economy in 2013 and over 8,000 FTE positions (White & Smith, 2014). With 2,700km of coastline and 26% of the land area designated as protected landscapes, Wales' natural resources for outdoor sports are world class. Despite this, uptake and frequency of participation in sport and outdoor activities is relatively low for the UK (Williams, 2016). With these issues in mind, this thesis examined the state of outdoor activity provision within Wales, exploring potential underlying issues regarding the low levels of participation whilst investigating positive aspects of provision.

The thesis consists of a general introduction (Chapter 1), five empirical studies (Chapters 2 to 6), and a general discussion (Chapter 7). More specifically, Study 1 is an examination of the status of outdoor activity providers in Wales. In Study 2 we examined two of the highest-level outdoor qualifications in the UK, the Mountain Instructor Certificate and British Mountain Guide, to understand nationality, place of residence and Welsh speaking ability. Study 3 was an investigation into provision of outdoor activities in secondary comprehensive schools in Wales that offer access to outdoor activity opportunities. In the fourth study we explored changes in the number of local education authority outdoor centres (OEC's) across a 30-year period from 1978 and 2018 in Wales. The final study investigated the contribution that outdoor activity clubs in Wales make to provision of outdoor activities.

These studies identified a historical and continuing lack of uptake in outdoor activity participation by native Welsh people as well as limited provision of activities through the medium of Welsh or by native Welsh people. Whilst uptake and provision for and by native Welsh people has increased in some parts of the country significantly in the last fifteen years, participation is still relatively low by European standards, particularly for women, Welsh speakers and BAME groups. Access to outdoor activity provision has changed drastically over this period, with a large decline in state funded provision for schools, but also an expansion in paid for provision and a significant increase in the number of outdoor activity clubs. These changes are likely to limit the accessibility of outdoor activities to lower NS-SEC groups whilst transferring much of the burden of accessible provision to the third sector.

CHAPTER 1: GENERAL INTRODUCTION

Within the United Kingdom, more and more people are making use of the outdoors as part of their leisure time. Recent surveys suggest that across 2013 and 2014, the adult population in England made over 2.93 billion visits into the outdoor environment (Natural England, 2015). In England, a total visitor spend was calculated at £21 billion, growing to £27 billion when overnight visits were factored in over 2012/13 (Reconomics, 2013). Such a trend is also evident in Wales, with 81% of adults living in Wales taking part in one or more outdoor activity at least once in the last 12 months (Williams, 2016). Further, increased use of the outdoor environment in Wales can positively impact the Welsh economy. Greater use of the outdoors increases tourism as more people come into the area; as a result, secondary spend is increased, which can lead to more jobs and a healthier economy. In this regard it is noteworthy that the outdoor industry contributes £481m (6%) of the Welsh economy each year, supporting over 8,000 FTE positions (White & Smith, 2014). In North Wales, the economic contribution of the outdoor industry is slightly higher at 8% of the local economy. In addition, the value-added contribution of outdoor activity tourism in Wales accounts for 10% of the Welsh tourism economy (White & Smith, 2014). The Welsh government has plans to make Wales the capital of ‘Adventure Tourism’ and it desires to make outdoor recreation a common platform to promote increasing health and physical activity within Wales (Business Wales, 2016). Such an increase in the use of the outdoor environment has a broad impact; clearly it can lead to improvements in physical health, but it can also positively impact the psychological well-being of those involved (e.g., Marsh & Hattie, 1987).

At a general level, given the contribution that the outdoor industry makes to the Welsh economy, it is evident that any improvements that can be made within the industry can have profound impacts for Wales. In order to gauge the potential impact that outdoor activity participation might have in Wales, it is important to first understand the current state of

physical and mental health in Wales. An understanding of the health of the nation can then be drawn in comparison to Wales' access to natural resources as well as current rates of provision and participation.

Physical health within Wales

Despite this positive trend of participation and spending in the outdoors in the UK (NRW, 2017; Sport England, 2015), the extent to which outdoor activity participation is actually conferring to health benefits is questionable. For example, Wales has the highest prevalence of diabetes of the UK home nations, with 7.3% of the population aged 17 or over classed as diabetic. Ninety per cent of those with diabetes in Wales have type 2 diabetes (Diabetes UK, 2015). Diabetes costs the NHS in Wales approximately £500 million a year, 10% of its annual budget. In addition to diabetes, Wales also suffers from problems with obesity. In 2016-17, 12.4% of four and five-year-old children in Wales were classed as obese with children in the most deprived counties of Wales being far more likely to be obese than those in the more affluent areas of the country (Child Measurement Programme, 2017). Indeed, the highest levels of childhood obesity are found in Anglesey, an area that is world renowned for its water-sports and rock climbing, with 32.4% of four and five-year-olds classed as overweight or obese in 2015 (Public Health Wales, 2015).

With the cost of physical inactivity in England estimated at £10 billion in 2013 (Reconomics, 2013), the case for significant health and economic benefits in increasing spending in physical activity participation is profound. The cost of physical inactivity in Wales is likely to be proportionately higher than in England due to higher levels of obesity and diabetes. Despite this, Natural Resources Wales' 'Welsh Outdoor Recreation Survey' has identified that rates of frequent participation in the outdoors have either plateaued or decreased from 2008 to 2011, 2014 and 2016 (NRW, 2016).

Mental health within Wales

In addition to physical health problems, the population of Wales also appears to be at risk from mental health issues. Results from a 2015 survey found that 13% of adults living in Wales reported receiving treatment for a mental health problem, with mental health disorders estimated at an overall cost of £7.2 billion a year in Wales (Mental Health Foundation, 2016). Wales has the second highest rate of suicides in the UK with 26.5 in 100,000 people ending their lives (Samaritans, Suicide statistics report 2017). In the 2017 Social Progress Index (SPI), Wales had the lowest ranking in the UK for quality of life when basic human needs, foundations of wellbeing and opportunity are considered (Social Progress Index 2017).

Outdoor recreation has the potential to make a significant contribution to tackling these issues through promoting an active lifestyle, health interventions (LaMonte, Blair, & Church, 2005) and the uptake of social prescribing programmes (Bickerdike, Booth, & Wilson, 2017). In addition, investment in outdoor activity linked health initiatives could see a significant social return on investment in Wales through reducing chronic health issues, promoting rehabilitation and driving locally sourced employment. As of 2019, social, or green prescriptions, are being piloted across different health trusts in Wales following the success of projects in Scotland. A pilot study following a ten-session outdoor activity intervention programme on Anglesey, noted significant improvements in self-reported mental wellbeing between the start and end of the programme (see Appendix E1 for Muskett, 2019 report).

In Iceland, a national demonstration model, known as Project Self-Discovery, used behavioural addiction to decrease alcoholism, substance abuse, obesity and crime amongst young people (Milkman & Wanberg, 2005). Behavioural addiction is a form of addiction that involves a compulsion to engage in a rewarding non-substance-related behaviour. In the programme researchers used activities ranging from dog walking and mountain biking to

football and knitting to engage groups identified as being ‘at risk’ and replace potentially harmful addictions with more constructive replacements that could help both mental and physical health (Sunderwirth & Milkman, 1991). This initiative was reported to have had a profound impact on individuals over the following two decades, at the same time as statistics for crime, obesity and substance abuse have seen significant reductions. For example, in 1998, 42% of fifteen and sixteen-year-olds reported having been drunk in the previous month with 23% smoking daily compared with 5% and 2% respectively in 2017 following the project (European Health Interview Survey, 2017). Project Self-Discovery has been replicated in other countries across Europe and in America.

Outdoor activities have long been used to engage difficult to reach groups in Wales such as young offenders and the long term unemployed, through the Prince’s Trust, Activ8 and other third sector organisations. Recently North Wales Police service (Public Health Wales, 2019) have started an outdoor programme for youngsters who have suffered from adverse childhood experiences (ACE). The aim is to help children who have had three or more ACE before they are detrimentally affected by their upbringing. Considering the mental health challenges that Wales face and the impact outdoor recreation can have on mental health, any increase in outdoor activity participation in the country could have a profound positive impact on the population.

Access to Natural Resources

Aside from the physical and mental health benefits, one factor that influences participation is access to natural resources. Access to green spaces and parks in Wales provide an estimated £1.6 billion in well-being benefits each year with an estimated total economic value to individuals of just under £30 a year and an approximate saving of £5.2 million a year for the NHS in Wales in prevented GP visits (Fields in Trust, 2018). Those from “lower socio-economic and BAME groups benefit from access to green spaces and

parks the most, principally with regards to associated health benefits, and any degradation in access will disproportionately impact these groups” (Fields in Trust, 2018, pp 47).

Additionally, Public Health Wales discovered five key points in their 2012 research project into the use of green space. The three most relevant to this research project are that: (a) green space was found to be beneficial for improving physical and mental health, (b) green space provision has potential for reducing health inequity, principally via improved local access to good quality green locations and (c) that several reviews and reports conclude that better spatial planning for improved green space access and walkable environments would be cost effective.

A research project in New Zealand has shown a positive association between access to green space and the need for treatment for anxiety and mood disorders, with a 4% reduction in treatment for every 1% increase in useable or total green space (Nutsford, 2013). Wales has a high proportion of green space per capita with 78% of the total land area being used for farming and agriculture and 26% of the total land area comprising of protected landscapes such as AONB’s and National Parks. Harnessing this green space could be critical to improving health and wellbeing, yet accessibility to green spaces may be an issue in Wales. According to Ordnance Survey’s Open Greenspace project, Wales’ urban environments have poor access to green space, with Cardiff amongst the worst areas in the UK having only 8% of its area being publicly accessible green space. In comparison, major cities in England, such as Birmingham and Nottingham, have nearly double the amount of accessible green space (Ordnance Survey, 2018).

Whilst the benefits of access to green spaces are well researched and documented, what is less clear is Wales’ use of its natural resources for the wider health of its residents. As previously noted, Cardiff, on a UK scale, has only a small proportion of its area available as publicly accessible green space. In planning applications for new housing in Wales,

developers must adhere to FIT Cymru's (formerly NPFA) minimum requirement of 2.4ha of open space of recreational value per 1,000 people. Developers applying for below a specified number of housing in each county, often between 10 and 40, need not follow these recommendations, but instead must financially contribute to the county council for green space development. As a consequence of these planning measures, strategically allocated green spaces may not be implemented as recommended for new housing developments.

Access to much of Wales' natural resources has improved significantly in the last quarter of a century following the Countryside and Rights of Way (CROW) Act of 2000. This Act legislated a responsible right of access to upland areas in Wales and England. Whilst less radical in its vision than Scotland's Land Reform Act of 2003, which legislated a responsible right of access to all land in Scotland, the CROW Act does safeguard access to many hitherto disputed areas. Unfortunately, the integrity of key planning and conservation principles set to protect access to green spaces has recently been under threat in Wales following the publication of the 2017 'Future Landscapes Wales' review. This independent review, commissioned by the Welsh Government, recommended scrapping the 'Sandford Principle', which has long been a cornerstone of conservation in National Parks. The 'Sandford Principle' protects National Parks in Wales from development by businesses and energy companies that may have a detrimental effect on access, the environment and public health. Following strong criticism from the UK panel of the World Commission on Protected Areas and many NGB's and conservation charities, the review has since been amended, but it highlights a lack of connected thinking with regards to policy on natural resources and public health in Wales.

Participation

In Wales, participation in outdoor activities seems complex. Despite the rise in outdoor activity tourism and its large contribution to Welsh GDP, notwithstanding the

abundance of natural resources for activities in Wales, NRW participation surveys suggest that the native population of Wales are not participating in outdoor recreation as regularly as their English and Scottish counterparts. These participation surveys show that there is a large divide in participation from those who frequently participate in outdoor recreation and those who have participated only once in the last 12 months. Regular participation in outdoor recreation is increasingly likely to occur in more affluent socio-economic groups and amongst white families. BAME groups, low-income households, women and those with disabilities are significantly less likely to frequently participate in outdoor activities than those from higher socio-economic groups and men (NRW, 2017). Respondents aged between 25-34 and 45-54 were the least frequent visitors by age group in Wales (NRW, 2017).

Interestingly, the UK generally competes at a high standard on the world stage in competitive outdoor activities such as downhill mountain biking, road cycling, competition climbing, slalom kayaking, equestrian events and rowing. This achievement is despite regular participation in outdoor recreation being much lower (18% in Wales) than in other European, and especially Scandinavian, countries such as Norway where 85% of inhabitants participate in outdoor recreation regularly (Norwegian Environment Agency, 2016). Furthermore, Wales is also home to a high number of outdoor/extreme sport world champions. These individuals include downhill mountain bike world champion Rachel Atherton, Kite Surfing world champion Kirsty Jones, freestyle and surf kayak world champions Paul Robertson and Tim Thomas and Tour de France winner Geraint Thomas. Despite this outwardly positive picture of a healthy and resilient nation with excellent natural resources, the reality for most inhabitants of Wales is quite different. Whilst there is good support from UK Sport, Sport Wales and national governing bodies through talent identification schemes for potential medal hopes, this funding does not trickle down to the masses. Neither do these examples of

sporting excellence seem to inspire vast swathes of the Welsh public to participate in outdoor activity more regularly; elitism being for the few and not for the many.

Provision

Areas such as Snowdonia, the Brecon Beacons and Pembrokeshire are amongst the most popular national parks in the UK. However, the relatively low physical activity participation rates across Wales suggests that local communities are not using them for active recreation to the same extent as. In North West Wales the Outdoor Partnership, a third sector organisation based around encouraging participation in outdoor activities, was set up in 2004 following research by Davies (2003) into participation and provision of outdoor activities in North West Wales. Davies (2003) highlighted that participation in outdoor activities in North West Wales communities was very low and marked by a cultural divide between the indigenous population and incomers to the area who participated more frequently in outdoor recreation.

A follow up research project (Thomas, 2013) provided greater detail by examining the make-up of providers of outdoor activities and their clientele. Thomas (2013) demonstrated that less than 20% of the instructional work force were native Welsh, compared to over 70% of the support staff of these organisations. Furthermore, only 13% of the instructional workforce could speak Welsh (Thomas, 2013). Quality natural resources and national parks will undoubtedly attract people from all over the UK to move to areas of outstanding natural beauty in Wales for lifestyle and work opportunities. With high levels of immigration, it is unsurprising that there are a high proportion of non-native Welsh instructors in North West Wales. Additionally, it is noteworthy that North Wales has experienced a net outflow of migrants to the other regions of Wales between 2007 and 2011 (Statistics for Wales, 2013) suggesting that people within the area may have struggled to find skilled employment. These statistics are emblematic of an industry wide problem in North West Wales where outdoor

activities are considered a past-time of wealthy tourists and provide employment opportunities for migrants.

This *Cultural Vicious Circle hypothesis* (Thomas, 2013) offers one explanation for low rates of locally sourced outdoor instructors and a short-fall in grassroots participation. Improving local training and recruitment in the outdoor sector could help build pathways to skilled employment for native Welsh people whilst also shifting the cultural onus towards outdoor activities being provided by the indigenous people of Wales in the language of their choice – be it Welsh or English. Further research will need to be made into this area to discover whether this is a Wales wide issue and if it is backed up by data held by national governing bodies for outdoor activities.

Policy

To gain a comprehensive understanding of whether Wales is using its natural resources to their full potential for the health benefits of the nation, we must also investigate government policy and spending. Policy and spending by the UK government has significantly changed in the last half century with regards to state provision of outdoor education. In the late 1960's and 1970's local authorities began investing in outdoor education centres and staffing that would be available freely to schools within their catchment. This strategy was, for the most part, regardless of the financial situation of the school or parents' incomes. Following the education reform act of 1988, when funding was removed from local authorities and directed towards schools, many of these centres, once completely subsidised by local authorities, began charging the schools for their service. When budgets at schools were tightened, these costs were passed on to parents, with many students being priced out of attending residential visits and some schools deciding not to use outdoor education centres. This change in provision appears to have led to centre closures, third sector buy-outs and the privatisation of centres, especially following the economic recession of

2008. Unfortunately, little research has been made into changes in the outdoor education industry and therefore data is difficult to obtain.

In recent years, the biggest social policy to be implemented in the UK came with the ‘Big Society’, espoused by the Conservative-Liberal Democrat coalition government led by David Cameron. This strident vision of community empowerment, social action and the opening-up of public services was set to tackle inequality through “equipping people and organisations with the power and resources they need to make a real difference in their communities” (Big Society, 2010). At its core was a National Citizen Service for 16-year-olds, aimed at bringing together communities through means of volunteering and a commitment to train 5,000 community organisers across the country. In a diverse strategy, from outdoor recreation through to voluntary public service, the Big Society aimed to improve employment and social cohesion. Findings from the first audit of the Big Society by Civil Exchange in 2012, discovered one main flaw in the Big Society; £3.3 billion in cuts to statutory funding suddenly increased the strain on third sector organisations to such an extent that charitable donations and volunteering could never make up the short-fall (Civil Exchange, 2012). The government was, effectively, undermining one of its key policies. A more cynical view would be that the Government was using the Big Society to alleviate some of the spending cuts by simply switching provision to the third sector. This shifting of provision from public services to the third sector likely had a significant impact on opportunities available for the most deprived user groups in accessing Wales’ natural resources for personal wellbeing benefits.

In order to reduce the negative effects of the 1988 Education Reform Act and the 2012 Big Society, in 2015, the Welsh Government introduced the Well-being of Future Generations (Wales) Act. The act requires public bodies in Wales to think about the long-term impact of their decisions, to work better with people, communities and each other, and

to prevent persistent problems such as poverty, health inequalities and climate change. (Commissioner for Wales, 2015) There are seven well-being goals the Act lays down: prosperity, resilience, health, equality, social cohesion, cultural identity and global responsibility. The Act offers a new level of protection for public services at risk of closure, from swimming pools to local authority outdoor education centres. Although it may not have prevented the recent closure of Staylitttle outdoor education centre that served schools in Powys, better understanding and education on this policy could safeguard the closure of future public services, or indeed prevent development on green spaces and parks in Wales.

Summary

So where does this leave Wales today? Outdoor activity tourism has been increasing exponentially with marketing drives from Visit Wales and new tourism hubs such as Surf Snowdonia and Zip World appearing in easily accessible rural locations in North Wales. The effect of new activity developments and marketing has given a boost to rural economies and increased the number of full time and seasonal jobs in the sector. Unfortunately for Welsh residents, many of these skilled jobs have been taken by immigrants (Thomas, 2013), perhaps because the local residents haven't picked up the skills and qualifications to work in the industry. This possible lack of local skill development in a regional industry suggests missed opportunities at a participation and a provision level.

As highlighted earlier in this introduction, Wales' mental and physical health is amongst the worst of all the home nations. Wales has the highest rate of type 2 diabetes, childhood obesity and mental health disorders in the UK. It also ranks lowest out of the home nations in the Social Progress Index. Comparing results from Natural England and Natural Resources Wales surveys suggests that the population of Wales is not participating in outdoor recreation as regularly as those in England, despite an increased amount of usable green

space. Although the causes of these problems are complex and diverse, participation in outdoor recreation could significantly alleviate such issues.

Natural Resources Wales' outdoor recreation surveys suggest that the number of people participating regularly in outdoor recreation has been declining, whilst the number of those not participating in outdoor recreation at all has been increasing. Walking is the most popular of all types of outdoor recreation and active recreation in Wales with 71% of respondents to the NRW survey having gone for a walk at least once in the previous twelve months. Due to the egalitarian nature of many popular outdoor activities such as walking and cycling, their utility in so far as improving rates of frequent participation, could be a key factor in improving the health of the nation.

Considering the infrequent use of Wales' natural resources by the vast-majority of the native population, we can assume that Wales can do more to promote the use of its natural resources for the health and well-being of future generations. This can be done by improving and promoting access and provision to the outdoors at a grass roots level in the most deprived quintiles of Wales and for a more diverse range of people; from hard to reach age groups, to women and those living with disabilities. In order for Wales to begin to make better use of its natural resources, it is important that a clear assessment of the state of outdoor activity is made, so that areas that require investment and support can be easily identified.

With these issues in mind, this thesis explores the provision of Outdoor activities in Wales via five studies. Study 1 (Chapter 2) comprises an investigative survey into the role outdoor activity providers have in the employment of locally sourced instructors. Study 2 (Chapter 3) reports an investigation into higher-level outdoor qualifications amongst native Welsh people. Study 3 (Chapter 4) explores outdoor activity participation and provision amongst Welsh secondary schools to identify the current state of play and what opportunities

are available for all teenagers. Study 4 (Chapter 5) is an investigative analysis of changes in provision by Local Education Authority outdoor centres in the previous forty years in Wales. Finally Study 5 (Chapter 6) examines the impact that outdoor activity clubs across Wales have in promoting a healthy and active lifestyle at a community level. Chapter 7 summarises the key findings from the studies and offers suggestions for future investigation and application.

The Outdoor Partnership, a charity changing lives through outdoor activities, have played a key role with their support in this project. Whilst part of this thesis monitors and evaluates change with regards to provision and participation in North West Wales, the charity's primary region of operation, the bulk of this thesis has been analysing survey data (Studies 1, 3 and 5) from the whole of Wales that the Outdoor Partnership have collected. The author of this thesis has used the term 'we' throughout the work to accommodate the wider research team, which consists of the author, The Outdoor Partnership and the author's academic supervisor Dr Ross Roberts as recognition of the collaborative nature of this research.

Research into these key areas will help us better understand the interrelationship of provision and participation, as well as identifying gaps and opportunities that could shape future recommendations into the use of Wales' natural resources for the health and well-being of future generations.

CHAPTER 2:**STUDY 1: AN EXAMINATION OF THE STATUS OF OUTDOOR ACTIVITY PROVIDERS IN WALES****Abstract**

Recent surveys have identified a low level of native Welsh recruitment with outdoor activity providers in North West Wales, which may affect participation in outdoor activities at a local level. This study investigated whether or not there had been improvements in the uptake of locally recruited employees within North West Wales since 2013 (the time of the last survey into outdoor activity provider recruitment) and whether a similar trend of employment was evident across the whole of Wales.

Thirty-two providers across Wales, employing 1,009 members of staff, completed a survey asking them questions relating to staff profiles and. We discovered that across the workforce, 34% of staff were locally recruited, but amongst the instructional staff this was lower at only 26%. In North-West Wales specifically, results indicated significant increases in locally recruited instructional staff between 2003 and 2013 and again from 2013 to 2018. Overall the survey identified that the proportion of native Welsh staff employed by organisations across Wales was low, with particularly low numbers in instructional roles. The number of women working in instructional roles in Wales is also low and very few providers of outdoor activities are able to run activity sessions through the medium of Welsh.

An examination of the status of outdoor activity providers in Wales

Wales has a booming outdoor activity tourism sector. The outdoor industry contributes up to 8% of the local economy in North Wales and £481m (6%) of the Welsh economy each year, supporting over 8,000 FTE positions (White & Smith, 2014). In addition, the value-added contribution of outdoor activity tourism in Wales accounts for 10% of the Welsh tourism economy (White & Smith, 2014). The size of this industry can be compared to agriculture, forestry and fishing which together contributed 1.5% of Gross Value Added in 2000 (Eurostat: Wales – Economy, 2001).

Wales' highest peak, Yr Wyddfa, is one of the busiest mountains in Britain, with six popular footpaths and a train leading to its summit. The number of ascents of Yr Wyddfa has been rising in recent years with 440,000 ascents in 2016 compared to 360,000 in 2013 to (SNPA, 2013; SNPA, 2017). These increases in visitor numbers are also reflected in the increasing number of tourism day visits to Wales. Ninety-eight and a half million visitors came to Wales in the 12 months ending November 2016, reflecting a 33.1% rise from the previous 12 months (Visit Britain, GBDVS, 2017).

A little over 26% of Wales' land area is classified as protected landscapes, 78% of the land area is used for farming and agriculture and there are 2,700km of coastline. With such abundant natural resources for outdoor activities and a growing but sometimes latent visitor demand for outdoor activity days, it naturally follows that Wales has a significant number of public, private and third sector outdoor activity providers. These providers offer a range of services to accommodate anything from school groups through to adventure tourism.

There are approximately 41 residential outdoor centres in Wales and the number of freelance outdoor instructors and guides, likely number in the thousands across the entire country. Wales' natural resources are such, that not only is there a Welsh national outdoor

centre in the form of Plas Menai, situated on the banks of the Menai Straits, there is also the English national mountain centre, Plas y Brenin, situated in the heart of Snowdonia national park. Of these 41 residential outdoor centres 20 are owned and run by local education authorities across England and Wales. Fifteen of these centres are managed by English local authorities whilst the remaining five are shared between 13 of the 22 Welsh local education authority areas. Provision of outdoor activities for schools appears to have been receding over the last quarter of a century (see Study 4 for more details). This is no less the case for Welsh local authorities where there appears to be an inverse relationship between rurality and access for schools to outdoor education centres; schools in rural areas appear to have less access to local authority outdoor education centres.

Surveys carried out by the Outdoor Partnership and Bangor University (Davies, 2003; Thomas, 2013) have identified low levels of participation in outdoor activities by local residents in North West Wales. This finding was also reflected in the make-up of employees and clients that providers engaged with. Davies' (2003) study identified extremely low levels of locally recruited instructional staff employed by outdoor activity providers in the region, whilst Thomas (2013) reported significant improvements, albeit with levels of locally recruited employees remaining proportionately low in instructional roles.

Whilst provision of outdoor activities in Wales is relatively high, a proportionately small number of the instructional staff delivering activity sessions are native Welsh (Thomas, 2013). Due to the complex and potentially dangerous development pathway of outdoor activities such as climbing, kayaking, surfing and mountain biking, the need for introductory experiences via experienced and often qualified practitioners is likely greater than with conventional sports and games. For this reason, there is a need for native people to be in jobs to provide opportunities to the next generation to develop skills and interests in the outdoors.

Such opportunities are only likely to be offered if native people are in instructional roles as opposed to more domestic/clerical roles.

With native Welsh provision (Davies, 2003; Thomas, 2013) and participation (NRW, 2017) in outdoor activities being low, we hypothesize that significant improvements in rates of participation, or provision, cannot be made independently of one another. This hypothesis becomes especially pertinent given the *Cultural Vicious Circle hypothesis* proposed by Thomas (2013). Thomas suggests that a vicious circle exists culturally in relation to outdoor activities where providers of activities are non-native, activities are aimed at tourists, activity sessions are expensive, and activities are not available through the medium of Welsh – thus activities are perceived amongst local residents as broadly middle-class and for “English” people.

Despite such a cultural vicious cycle being potentially evident in relation to outdoor activity participation, Davies’ (2003) and Thomas’s (2013) work also point to increases in native Welsh provision in instructional staff between 2003 and 2013 and a large increase in outdoor activity clubs (see Study 5 in thesis for more details of the increases in Welsh provision in clubs). In addition to these increases in staff, the number of elite performers coming from Wales and medalling in international outdoor activity events also appears to be increasing. Examples include multiple downhill mountain biking world champion Rachel Atherton and Kirsty Jones, who is a 3 times kitesurfing world wave champion.

With the complex relationship between reliance of the Welsh economy on a growing outdoor activity tourism sector and the importance of outdoor activity providers in offering gateway opportunities for participation in sport, the Outdoor Partnership wanted to re-visit the previous studies (Davies, 2003; Thomas, 2013) whilst expanding their reach across all Welsh regions. In this study, we investigated patterns of employment amongst outdoor

activity providers across the whole of Wales, to identify whether the same patterns that existed in North West Wales are evident in other areas. Using the data from Davies (2003) and Thomas (2013) we also compared patterns of employment in North West Wales over time.

Further to native Welsh provision, we wanted to investigate the gender gap within the outdoor workforce and the potential impact that this could have on participation. Gender in the outdoor workforce has been a much-debated topic in recent years due to a very male dominated industry that has put some women off participating in adventure sports due, in some part, to a hedonistic and masochistic perception of outdoor activities in practise and the media. The success of the ‘This Girl Can’ and ‘Women in Adventure’ (www.womeninadventure.com) campaigns have fuelled a demand for female only events such as the extremely popular women’s climbing symposium and women’s trad festival, which sell out often within a day of being advertised. As a result, National Governing Bodies such as Welsh Cycling (SheCycles Wales, 2014) and Mountain Training (Women in Mountain Training, 2015), have taken time for introspection and to investigate how they can boost levels of participation at a grassroots activity level as well as at an instructional level. Initiatives such as women’s only coaching sessions, women’s only clubs and better mentoring for female instructors have been rolled out across the UK. These initiatives have led to a marked increase in the number of women going through qualification pathways and reaching higher level outdoor qualifications (see Study 2).

The increase in the number of women participating in outdoor activities in Wales is particularly important given the smaller percentage of women hitting their national indicator 8 (NI8) in active recreation compared to the other home nations. The NI8 is the standardised test in the UK measuring frequent participation in active recreation. Women living in Wales

are also the only group in the UK that have seen life expectancy decrease since 2011 according to the office for national statistics (ONS, 2016).

The Outdoor Partnership targeted survey questions towards improving their understanding of the make-up of outdoor activity providers in terms of their native and non-native staff across different areas of the workplace. Because of Outdoor Partnership initiatives implemented in North West Wales such as a pathways to employment programme, we expected to observe a continued upward trend in the employment of native Welsh staff. We were, however, unsure if this would be meaningful, as was the case between 2003 and 2013, or whether increases from the programme had begun to plateau. Across the whole of Wales, we expected to see a similar pattern of employment as in North West Wales, but with more locally recruited employees in other parts of Wales compared to North West Wales. This was because we hypothesized that Snowdonia had a higher number of migrant workers.

Method

Participants

Following the recommendations of Davies (2003) and Thomas (2013), the Outdoor Partnership developed a survey to send out to outdoor activity providers in Wales. The survey was intended to provide feedback on Outdoor Partnership initiatives aimed at increasing recruitment of local instructional staff in North West Wales and compare this with Wales as a whole. The Outdoor Partnership gathered a fresh list of outdoor activity providers, including the providers that still exist and are still relevant to this study from the 2003 and 2013 surveys for means of comparison and contacted 53 outdoor activity providers across the whole of Wales. Providers were selected to cover the differing types of outdoor activity provider in Wales; namely national centres, local education authority centres, private centres, adventure tourism providers and private outdoor activity providers. An effort was made to select

providers that cover the outdoor activity sport spectrum, from kayaking to climbing and sailing to zip-lining. All providers contacted employed freelance, full-time staff or more often than not, a combination of the two. Providers were identified from the previous list of respondents to the 2013 study, from a search of the Adventurous Activities Licensing Service (AALS) providers and through on-line searches for key words of activities, areas and services such as 'climbing / guiding / Pembrokeshire'.

Targeting providers in such a way was thought to be practical in that it could be broken into sub-groups and there would also be a good range of employees from those with high and low-level qualifications as well as those on apprenticeship schemes. Sixteen respondents were the same as from the 2013 survey and ten respondents were the same as from the 2003 survey. Thirty-two providers responded giving us a 60% response rate.

As the data from this survey conducted by The Outdoor Partnership is anonymised and non-sensitive, there was no requirement to get ethical approval for secondary analysis (ESRC Research Ethics Framework, 2018). Data collected by The Outdoor Partnership was kept safe from unauthorised access; hardcopies were stored in a locked office and computer files were encrypted. The data were also evaluated for their utility in secondary analysis through criteria such as the purpose for which they were collected, the period of data collection and the content and methodology of data collection (Tripathy, 2013). These criteria were felt to be met to a satisfactory level and were in line with the research aims.

Measures

The results were gathered through the distribution of a questionnaire amongst outdoor activity providers that employ multiple members of staff in Wales. The previous survey was compiled in February 2013 with the support of the Outdoor Partnership relating to the provision of outdoor activities for local people, the levels of volunteering, of community

engagement, fluency in Welsh of staff and staff profiles in relation to job type (management, clerical, instructor etc). The complete questionnaire can be found in Appendix A1. Some of the questions used in this questionnaire were the same as in the 2003 survey to allow a direct comparison of responses. For example: Are you a profit or non-profit organisation? What activities do you cater for? How many staff do you currently employ in your organisation (role and sex)? How many of your staff are Welsh speakers or learners (role and sex)? How many of your staff received their secondary education in Wales?

New questions were also included because of changes in the sector, the area and the aims and objectives of the Partnership, such as: Do you have any trouble finding Welsh speaking instructional staff with relevant qualifications? Would you like to employ more Welsh speaking staff?

Procedures

This survey was created bilingually and distributed by email with a participant's information sheet and a link to a google forms survey (see Appendix A1). A word document and hard copy of the questionnaire was available on request. The survey was distributed at the beginning of January 2018 and closed at the end of March 2018.

Results

Provider profiles

Thirty-two (60%) providers responded. Sixteen providers had also responded to the 2013 survey whilst 10 had responded to the original 2003 survey in North West Wales. Of the 32 providers, 25 were based in North Wales and 7 in South Wales. Sixty-two-point five percent of respondents were profit making and 37.5% were not for profit organisations. Eighty one percent of organisations were able to provide for young people and local young people. All

organisations were able to provide activities for adults and 87.5% of organisations currently provide activities for local people.

Organisational staffing profiles. The main aim of the providers survey was to better understand the staff profiles of each outdoor activity provider. These questions related to their employees' place of origin, gender, Welsh language skills and the positions held by staff members.

One thousand and nine staff were employed by the organisations who took part in the survey across the whole of Wales. There was an average of 32 staff per organisation. The main part of the workforce comprised freelance/seasonal staff with only 56% of staff in permanent employment. Instructional staff accounted for 62% of the workforce. Table 1.1 provides a breakdown of staff by role

Table 1.1. Staff roles by staff number and proportion across all outdoor activity providers in Wales.

Staff Profile	Total	%
Managerial	101	10%
Permanent Instructional	185	18%
Freelance Instructional	440	44%
Support Staff	283	28%
Total	1009	

Staff profiles North West Wales sub-group. In the North West Wales sub-group, the average number of staff in each organisation was 16% higher than the Welsh average at 37 members of staff. There has also been a large increase in the average staff size in North West Wales from 22 in the 2013 survey to 37. The positions held by staff members indicate a trend towards employing fewer permanent staff and employing greater numbers of freelance staff.

This trend may provide a reflection of the decrease in not for profit organisations who appear to employ more permanent staff (see Figure 1.1).

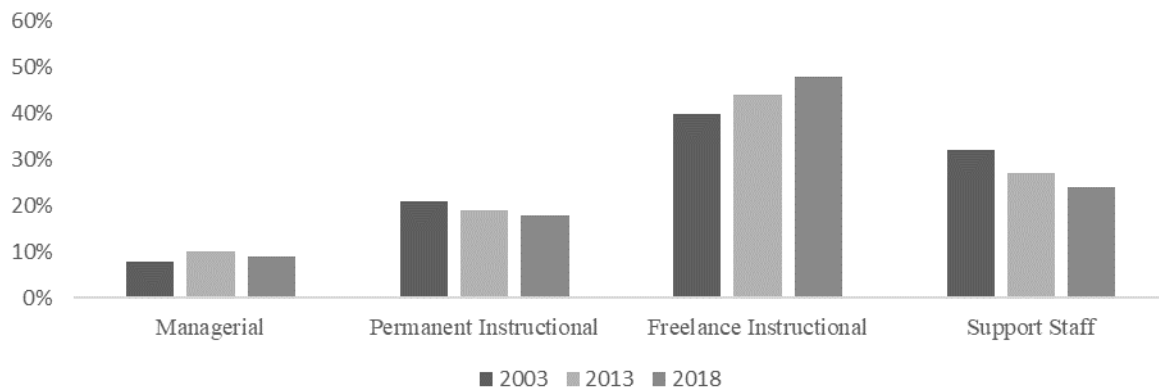


Figure 1.1. Changes in staff roles proportions in North West Wales providers between 2003, 2013 and 2018.

North vs South Wales staff profiles. The 2018 survey was also divided into two sub-groups for comparison; North and South Wales, so that we could see if there were differences between two regions that appear to have very different natural resource characteristics. The number of providers that responded to the survey from South Wales was substantially lower than from North Wales with only seven providers compared with 25 in the North.

The organisation size was smaller in South Wales with an average of 12 employees compared with 37 in the North. The sample may be too small to provide a fully representative picture, however when organisations details were gathered in the primary stage of data gathering for this survey, a larger number of LEA centres [See Study 4 in thesis] and all national centres were based in the north.

The providers in South Wales had a higher proportion of managerial staff and a higher uptake of freelance instructional staff than the north, perhaps because of the smaller business sizes, see Table 1.2 which staffing proportions.

Table 1.2

Staff role proportions for North and South Wales.

Staff Profile	North Wales		South Wales	
	Total	%	Total	%
Managerial	86	9%	15	19%
Permanent	169	18%	16	19%
Instructional				
Freelance	404	44%	36	39%
Instructional				
Support Staff	266	29%	17	22%
Total	925		84	

Summary of staff profiles. Between 2003 and 2018 there was a general decrease in the employment of permanent staff (managerial, permanent instructional, support) in the outdoor workforce and an increase in the employment of freelance/seasonal staff. There has also been an increase in the average number of staff employed by outdoor activity providers between 2003 and 2018. In 2018 not for profit outdoor activity providers employ greater numbers of staff than profit making providers but proportionately lower numbers of instructional staff than profit making outdoor activity providers.

Gender

The survey showed that the workforce consists of 60% male and 40% female in the whole of Wales with females more likely to take on support roles rather than instructional or managerial jobs. Figure 1.2 provides details of the breakdown of males and females across roles.

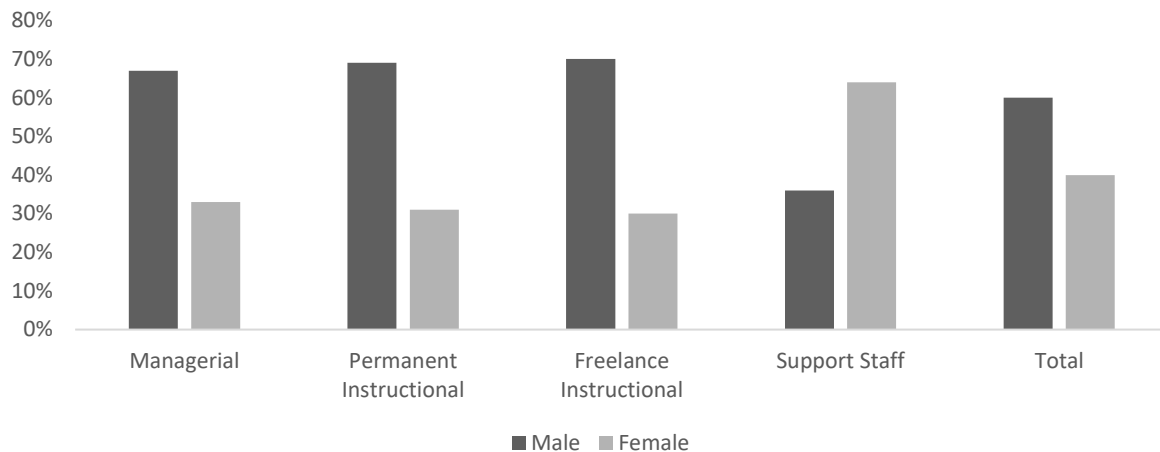


Figure 1.2. Gender mix in the Welsh outdoor workforce 2018.

In order to examine gender differences across time we compared results of the current survey for the North-West Wales sub group to the same sub group from the 2013 survey. Results demonstrated a six percent increase across time, 37% in 2013 to 43% in 2018, with the biggest changes evident in managerial and permanent instructional positions.

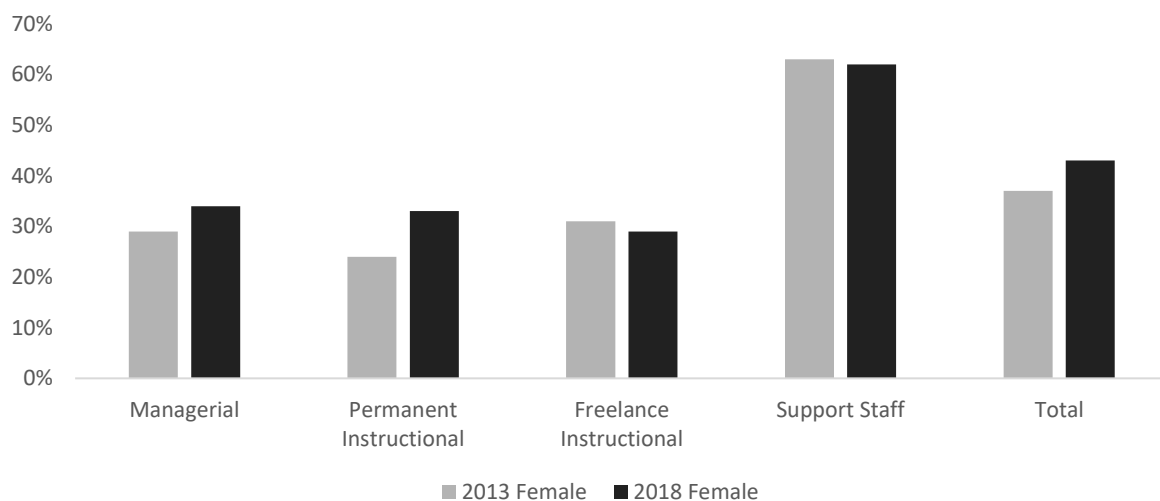


Figure 1.3. Differences in the proportion of women in the outdoor workforce of North West Wales between 2013 and 2018.

Summary of gender in the outdoor workforce. There are a greater proportion of males (60%) than females (40%) working in the outdoor industry with females less likely to

take on instructional roles than other jobs. The survey suggests that there has been a trend to a more equal representation of males and females in the workforce in North West Wales from 2013 to 2018 with an overall number of 43% of women in the workforce in 2018 compared with 37% in 2013. This is slightly higher than the Welsh average of 40% women. The biggest increase in the employment of women has been in permanent instructional roles.

Locally recruited employees

The survey showed 34% of the workforce received their primary or secondary education in Wales. There were far fewer locally recruited instructional staff and seasonal instructional staff with only 25.6% of all outdoor staff locally recruited compared with managerial (45%) and support staff (50%) roles (see Figure 1.4).

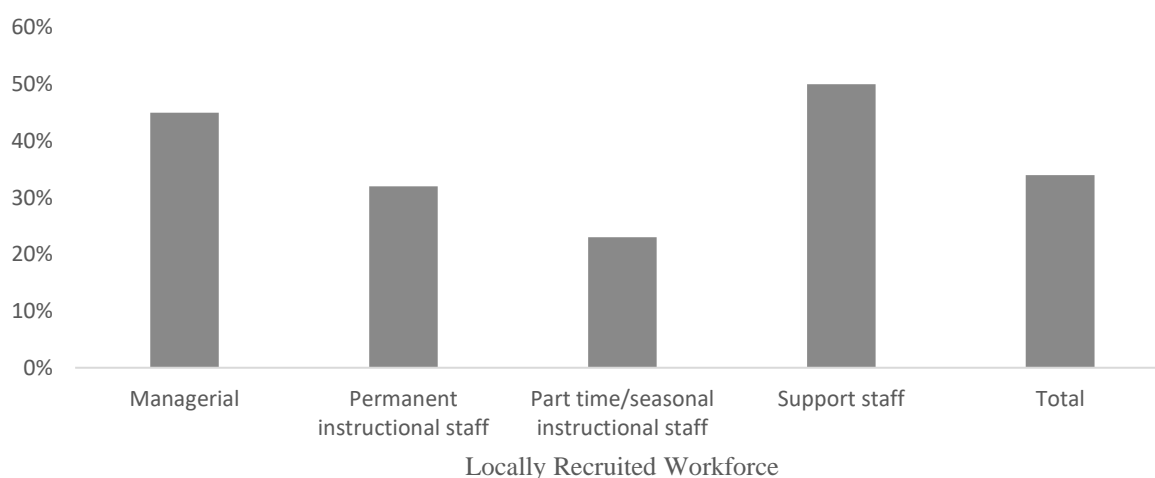


Figure 1.4. Proportion of workforce that are native Welsh in different staff roles and overall.

Locally recruited employees in North West Wales sub-group. In North West Wales, 32% of the workforce received their primary or secondary education in Wales, an increase from the 2013 survey which showed 29% of the workforce received their secondary education in Wales. In Figure 1.5 shows clear increases in locally recruited staff in managerial as well as permanent and part time instructional staff between 2003 and 2018. It

is noteworthy how much higher the proportion of locally recruited support staff is compared to the other staff roles and also how the numbers of locally recruited support staff have been dropping between 2013 and 2018.

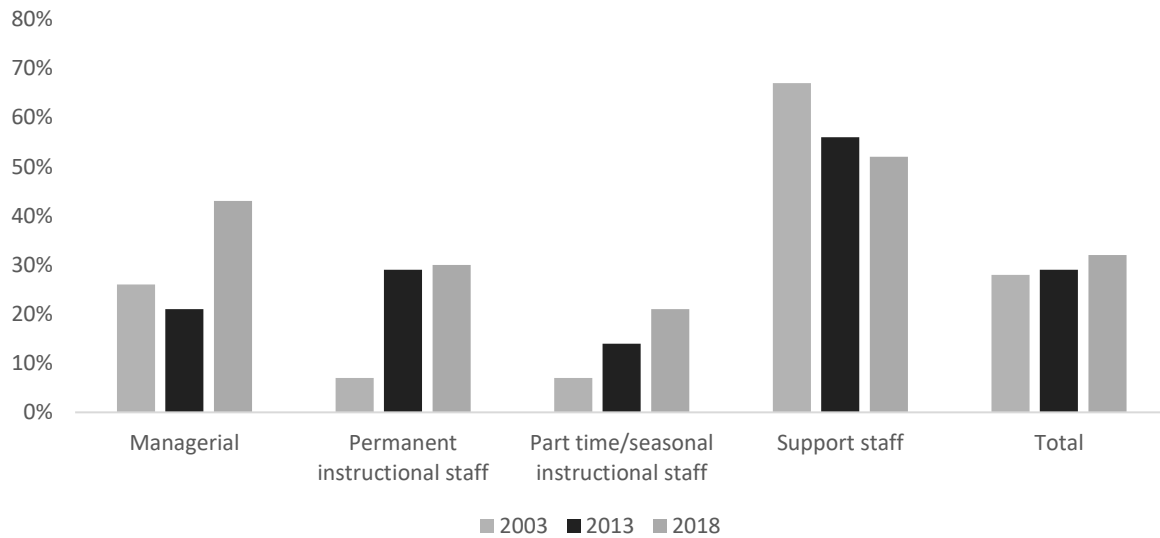


Figure 1.5. Changes in locally recruited (native Welsh) staff in North West Wales in different staff roles between 2003, 2013 and 2018.

With data from 2003 and 2013 relating to staff recruitment in North-West Wales, we wanted to measure for statistically significant changes in locally recruited staff to better understand what effect The Outdoor Partnerships projects have had in the region. A Chi-square test revealed a significant difference in the number of locally recruited outdoor instructors (permanent and part-time) in North West Wales between 2013 and 2018, $\chi^2(1) = 3.85, p = .05$ with more locally recruited outdoor instructors employed in 2018 than 2013.

There was also a significant increase in locally recruited outdoor instructional staff between 2003 and 2013, and 2003 and 2018. Whilst there was a significant increase in the number of locally recruited staff across all staff roles between 2003 and 2018, there was no significant increase in all locally recruited staff between 2013 and 2018. This would suggest that whilst there have been significant increases in locally recruited instructional staff, there

haven't been increases in the recruitment of locals in other staff roles over the last five years (see Appendix A2 for Chi-square tests).

Differences in locally recruited employees between the north and south. A Chi-square test compared the number of locally recruited instructional staff employed between North and South Wales providers. A significant effect was found, $\chi^2(1) = 12.58, p = .001$ with providers in South Wales employing more locally recruited instructional staff than North Wales providers.

There was no significant difference in locally recruited staff across all roles between the north and the south (see Appendix A2).

Differences in locally recruited employees between providers. We also wanted to investigate whether there were significant differences in the employment of locally recruited members of instructional staff between different provider types. The reason for this was to investigate anecdotal evidence that instructors in the industry have fed back that there appear to be fewer more highly qualified native instructional staff.

First, we split providers into profit and non-profit organisations and found that there were no significant differences in the recruitment of instructional staff across all roles and instructional roles, $\chi^2(1) = .05, p = .82$. This may have been because both organisation types broadly require instructional staff to deliver entry level activities through to advanced sessions.

Next, we separated the providers into two groups. Those delivering NGB qualifications (therefore requiring higher qualifications) and those delivering general outdoor activities. We found that only 13% of instructional staff were locally recruited amongst providers of NGB qualification courses compared with 22% of general outdoor activity providers. This result was significant, $\chi^2(1) = 6.86, p = .01$.

Summary of locally recruited employees in the outdoor workforce. Whilst there was a significant increase in locally recruited employees across all staff roles in the outdoor workforce of North West Wales between 2003 and 2018, there were no significant changes between 2013 and 2018. The general increase in the employment of locally recruited employees has continued from 2013, albeit at a more gradual pace. When dividing the workforce into different staff roles, it is clear that there have been significant increases in locally recruited instructional staff between 2003 and 2013, 2003 and 2018 and 2013 and 2018.

Looking at the results for the whole of Wales, there is no significant difference overall between the north and south in terms of locally recruited staff across all job roles. Further, there were no differences between profit making and non-profit making providers in terms of locally recruited staff. However, sub group analyses indicated some differences in locally recruited staff. For example, there were significantly more locally recruited instructional staff in South Wales than there were in the north. Further, providers running national governing body qualification courses (therefore requiring more highly qualified instructional staff) recruited fewer number of local staff than general activity providers.

There have been increases in the number of females working as outdoor instructors between 2013 and 2018 in North West Wales with an increase of 9% in permanent instructional roles with the proportions of men and women growing closer in all staff roles other than freelance instructional staff.

In conclusion, there has been a significant increase in the numbers of locally recruited employees in NW Wales from 2003 to 2018, in particular in instructional roles. North West Wales has significantly fewer locally recruited instructional staff than South Wales. Providers

that require instructional staff with higher qualifications also employ significantly fewer locally recruited instructors than those that run introductory outdoor activities.

Welsh speaking employees

The survey showed that 25% of the workforce could speak Welsh. Examining the percentage of Welsh speaking staff by job role indicated that 19% of instructional staff could speak Welsh, whilst 47% of managerial and support staff could speak Welsh. In South Wales the number of Welsh speaking instructional staff at 16% was slightly lower than in North Wales with 19%.

Fifty-six percent of outdoor activity providers stated they had trouble finding Welsh speaking staff and 75% stated they would like to employ more Welsh speaking staff. 50% of respondents stated that the reason for not employing Welsh speaking staff was the lack of qualified Welsh speaking outdoor instructors.

Welsh speaking in North West Wales sub-group. In the North West Wales sub-group, we compared numbers of Welsh speaking staff with the 2003 and 2013 results. As is evident in Figure 1.6, levels of Welsh speaking have remained fairly static across time for managerial and support staff roles. However, we compared differences between 2003 and 2013, and 2003 and 2018, (see Appendix A2 for Chi-square test results) and showed a significant increase in Welsh speaking instructional staff. This significant increase appears to have plateaued between 2013 and 2018 where there was a slight decrease from 20% to 19% in numbers of Welsh speaking instructional staff.

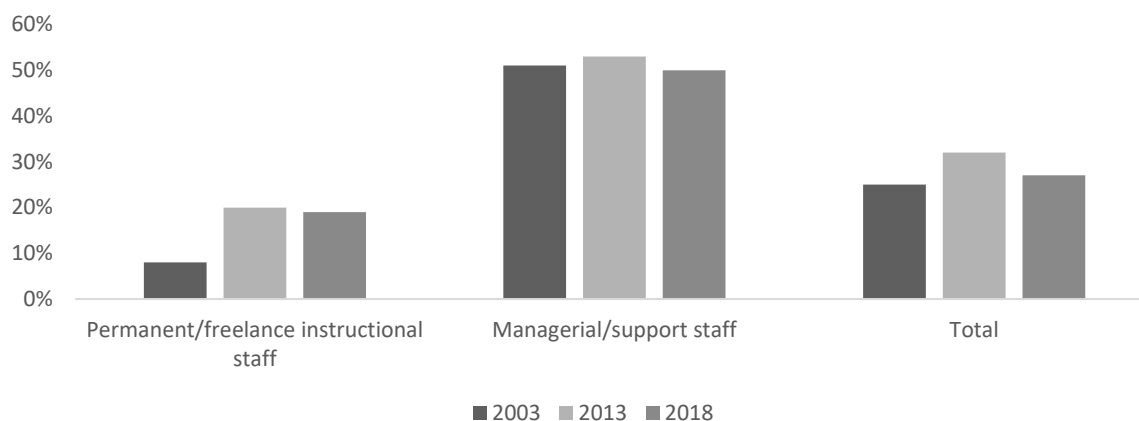


Figure 1.6. Changes in the number of Welsh speaking employees in North West Wales between 2003, 2013 and 2018.

Discussion

Provider profiles

As the first comprehensive survey of outdoor activity providers in Wales, the 2018 survey offers fresh insight into the outdoor activity industry. With 1,009 staff employed across 32 providers there was an average staff size of 32 per organisation. This can further be divided into an average staff size of 37 amongst the North Wales providers and 12 in South Wales. This large difference in staff size is down to the difference in organisation sizes in the north where the largest providers in Wales such as the Urdd's Glan Llyn, Surf Snowdonia and the English and Welsh national outdoor centres are based. Furthermore, the vast majority of local education authority outdoor centres (or former LEA's) are also based in the north. Whilst the proportion of respondents from South Wales to this survey was low at 22%, it appears to be broadly representative in terms of the number of providers that are likely to exist in South Wales compared to North Wales. In the primary stage of this study we used online key word searches for providers to contact across Wales and found that the greatest concentration was around Snowdonia, although there were smaller concentrations found in the Brecon Beacons, Pembrokeshire, the Gower and Anglesey. As mentioned in the results,

we also discovered that the providers who responded were on average much larger in North Wales than South Wales, perhaps a reflection of the recent rise in larger activity providers in the north, such as Surf Snowdonia, Zip World and Bounce Below as well as a greater concentration of LEA centres and the two national outdoor centres.

When we compared the average staff size of organisation in North West Wales with 2003 and 2013 there was a large increase from 22 to 37. During this same period there has been a gradual decrease in the employment of permanent staff with the numbers of part time or seasonal staff up from 40% in 2003 to 44% in 2013 and 2018. Whilst every effort was made in this survey to get responses from the same providers as in 2003 and 2013, many of them have finished operating and some were not large enough employers to meet the entry requirements of this study. Despite this, we were able to obtain data from 16 of the 25 North West Wales providers from the 2013 survey and 10 from the 2003 survey, meaning that the comparisons made have some validity. It should also be noted that there was a marked increase from 36% to 66% of profit-making respondents between 2003 and 2013 and a slight drop from 66% to 62.5% of profit-making providers between 2013 and 2018. The increase in profit making providers is most likely a result of the closure of local education authority centres during this period (see Study 4 for more details). The slight decrease in profit making providers between 2013 and 2018 may be down to an increase in third sector organisations that have opened following the closure of former LEA's, where new opportunities have arisen to take on provision of activities for schools and clubs.

As with many service and tourism related industries, providers have few permanent staff, relying on 44% of staff being seasonal or freelance. In Snowdonia, there is a high concentration of qualified instructional staff (see Study 2 of thesis) and lower day rates are advertised for freelance staff on professional forums than other areas of the UK, such as Scotland and the Lake District. The same disparity in pay is also evident in the freelance

instructor rates advertised for instructors between the Scottish national outdoor centre, Glenmore Lodge based in the Cairngorms, and the English national mountain centre, Plas y Brenin based in Snowdonia. These differences in day rates may be due to an over-abundance of qualified freelance instructional staff which have pushed down day rates and exacerbated a “gig economy” in the area which has been favourable for employers and less so for employees. Whilst no quantitative data exist in relation to this, when one compares the number of qualified instructional staff residing in Wales through the Mountain Training database with the estimated number of FTE positions (over 8,000 - White & Smith, 2014), there is a disproportionately small number of FTE positions available. Comparing the number of qualified instructors to FTE positions would suggest that the vast majority of outdoor instructors residing in Wales are either sole traders or have additional employment. This finding matches up with the typical economic situation of British National Parks which are GVA low and self-employment high; a reflection of the lack of industries in National Parks and the reliance on a seasonal services economy.

The gradual decrease of permanent staff is especially noticeable amongst profit making providers. This decrease is perhaps a reflection of the difficult economic situations private businesses have faced in the last decade with low interest rates. Not for profit organisations appear to have retained similar staff role proportions in North West Wales between 2003 and 2018 and these providers also employ on average the largest numbers of staff. We can further speculate that the increased average numbers of staff per provider and the increased number of seasonal staff is partly the result of an increased summer time or peak demand for activity days due to an increase in visitor numbers to Wales (Visit Britain, GBDVS 2017), rather than the more consistent demand from schools and clubs across the year.

Gender

The 2018 providers survey shows positive signs of improvement with women working in the outdoor industry in North West Wales becoming more equally represented in all job roles other than freelance instructional staff where there was a slight but not significant decrease. There has been a significant increase in the overall number of women working in all instructional roles and permanent instructional roles (+9% from 2013) whilst there has been a decrease in the proportion of women working in support roles, which have historically been done by women. Across the whole workforce there has been an increase from 2013 to 2018 with an overall number of 43% of women in the workforce in 2018 compared with 37% in 2013. At 43%, North West Wales providers employ more women than the Welsh average of 40% women. The picture across the whole of Wales is broadly similar to that of North West Wales. Whilst there is still plenty of room for improvement in women working in instructional roles, and in particular in highly qualified instructional roles, changes in the industry between 2013 and 2018 have had a significant positive impact on the industry. Where the impact is seen at the instructional/role modelling level we are likely to also see increases in grassroots participation amongst women.

Locally recruited employees

With such acclaimed natural resources and relatively quick access from many large English cities, it is logical that there has been an influx of instructional staff migrating to Wales where they can work in a vibrant industry and live in an area that suits the lifestyle and sporting requirements of the individuals. Whilst a large migrant workforce has been necessary to fill the demand, it has also played a part in a complex historical cycle described as a *cultural vicious circle* (Thomas, 2013). This has been evident in the low participation and employment rates of native Welsh people in outdoor activities. Activities run by non-native individuals, for the higher paying tourist market have perpetuated a cycle where locals

have been priced out of activities and activities have been perceived to be for the wealthier middle-class English tourist market. Whilst this may be a broad stereotype, it has certainly played an element in the shape of the sector in Wales and the low employment rates of native instructional staff identified in 2003 and 2013.

In the current survey, it was clear that the recruitment of native Welsh staff was proportionately low in the outdoor activity sector of Wales, with only 32% of all staff having gone through their primary and/or secondary education in Wales. Furthermore, dividing the results into different staff roles revealed an even starker difference with only 21% of part time instructional staff and 30% of permanent instructional staff being recruited locally. These findings perpetuate the idea that the appetite for grassroots outdoor activity participation in Wales has been historically low and that use of natural resources in Wales for health and wellbeing benefits has been underused. We divided the results into providers who were based in North and South Wales and discovered that there were significantly more native Welsh instructional staff in South Wales than North Wales. This finding is likely to be a reflection that Snowdonia and Anglesey are hubs for outdoor activities and draw more migrant instructors to the north.

We also separated the providers into different groups to see if there were significant differences between provider types. First, we divided providers between profit and non-profit making businesses to discover that there were no significant changes amongst any staff roles. We then split the groups between outdoor activity providers running national governing body (NGB) qualification courses (therefore requiring more highly qualified instructional staff) and general activity providers and discovered that there were significantly fewer locally recruited members of instructional staff amongst the providers of NGB courses. These results are interesting because they identify a large area of improvement to be considered by Welsh national governing bodies and an area for future research (namely Study 2). A lack of native

Welsh instructional staff with higher level qualifications suggests that the qualification pathways and support for instructors in Wales may be lacking. It also raises the possibility that native Welsh individuals are not beginning activities early enough in life, with the highest-level qualifications such as the British Mountain Guide and the Mountaineering Instructor Certificate, taking over ten years of participation and qualification pathways to achieve.

In the North West Wales sub-group, we compared the numbers of locally recruited employees with the 2003 and 2013 results. Whilst there was a significant increase in locally recruited employees in the outdoor workforce of North West Wales between 2003 and 2018, there have been no significant changes between 2013 and 2018. The general increase in the employment of locally recruited employees has continued from 2013, albeit at a more gradual pace. When we divided the workforce into different staff roles, there were significant increases in locally recruited instructional staff between 2003 and 2013, 2003 and 2018 and 2013 and 2018. These positive changes in North West Wales could reflect a number of factors. First, some of these positive changes are likely a by-product of initiatives started by the Outdoor Partnership such as their pathways to employment project, where local residents are given the opportunities for subsidised training and support for qualifying as an outdoor instructor in return for volunteering. Second, there is also a likely increase in the awareness of work opportunities in the outdoor industry amongst young people in North West Wales due to role modelling initiatives, young ranger schemes and volunteer leader training, all aimed at younger people. Finally, these changes are perhaps in part due to the children of non-native Welsh people working in the industry whose parents moved to the region for the outdoor lifestyle it offers.

Welsh speaking staff

Following the findings of the survey in the area of locally recruited staff it was unsurprising that the survey also identified that the number of Welsh speaking employees was particularly low, especially amongst those employees in instructional roles. Only 19% of instructional staff could speak Welsh across the whole of Wales with only 16% of instructional staff in South Wales able to speak Welsh.

In the North West Wales sub-group, the 19% of Welsh speaking instructional staff can be compared to the 2003 and 2013 results. Whilst there was a significant increase in Welsh speaking instructional staff between 2003 and 2013, the proportion of Welsh speaking instructional staff between 2013 and 2018 has declined slightly from 20% to 19%. Gwynedd, the principle county of Snowdonia National Park, where most providers are based, has 77,000 Welsh speakers, which is 65.4% of the population (2011 census). This value suggests that the importance of Welsh language skills in the region is of particular value, and yet there are very few providers that are able to offer provision of outdoor activities via the medium of Welsh. The survey also found that 75% of providers stated they would like to employ more Welsh speaking staff whilst 50% of respondents stated that the reason for not employing Welsh speaking staff was the lack of qualified Welsh speaking outdoor instructors. This is clearly an area for National Governing Bodies and providers to work on in the future.

Conclusions

Overall the 2018 survey has identified that the proportion of native Welsh staff employed by organisations across Wales is low, in particular in instructional roles. Proportions of native Welsh instructional staff working for providers that require more highly qualified staff is especially low. The number of women working in instructional roles in

Wales is also low and very few providers of outdoor activities are able to run activity sessions through the medium of Welsh.

Whilst we have seen significant improvements in the number of locally recruited instructional and Welsh speaking staff in North West Wales, the proportions remain relatively low with possible repercussions in grassroots outdoor activities amongst local people. However, with the continued awareness of work opportunities in the outdoors, better facilities and an increase in the number of positive role models in Wales, we are likely to continue to see a gradual shift to a more equal representation of locally recruited staff working in the outdoor sector of Wales.

CHAPTER 3:**STUDY 2: AN INVESTIGATION OF THE UPTAKE OF HIGHER-LEVEL
MOUNTAINEERING QUALIFICATIONS IN WALES****Abstract**

Anecdotal evidence from outdoor instructors and providers in Wales has suggested that, despite there being a large number of employment opportunities for instructors in Wales, very few qualification holders are native Welsh. With little to no research in this area, we examined two of the highest-level outdoor qualifications in the UK, the Mountain Instructor Certificate (MIC), with 462 qualification holders, and British Mountain Guide (BMG), with 128 full members, to understand where qualification holders lived, where they came from and how many spoke Welsh. With the support of Mountain Training and the British Mountain Guides, we used information held in their database and contacted members to obtain our results. We found that Wales, specifically North-West Wales, was a hub for our sample groups, with 22% of BMG's and 25% of MIC's living in the country. Despite this, only 5% of BMG's and 4.5% of MIC's are native Welsh. These findings hint at a problem with uptake in these qualifications for native Welsh people. The repercussions of these findings suggest a circular problem; a low number of native Welsh instructors and guides exist to develop talent amongst the native grassroots participants, and a low number of grassroots participants exist from which fewer future MIC's and BMG's are likely to emerge.

An investigation of the uptake of higher-level mountaineering qualifications in Wales

Anecdotal evidence over the past fifteen years has suggested that the number of native Welsh outdoor instructors with higher level qualifications is low. Welsh born British Mountain Guides or Level 5 paddle-sports coaches have been the exception rather than the rule in the outdoor industry despite the abundant natural resources of Wales. Wales appears to have a large proportion of instructors and guides with higher level qualifications living and working in the country whilst there may be very few native instructors and guides with higher level qualifications.

When investigating skilled employment in Wales it is important to understand that North Wales has experienced a net outflow of skilled workers to other regions of Wales and the UK in recent years (Statistics for Wales, 2013). It should therefore be important for the area to retain and train skilled workers in industries found in the region, rather than relying on a migrant workforce.

Despite the abundance of anecdotal evidence supporting the hypothesis of fewer highly qualified native Welsh outdoor instructors, there have been no studies into this area. The findings of the first study highlighted the need for additional evidence to better understand and substantiate the findings that there were fewer locally recruited members of instructional staff amongst providers delivering national governing body courses. These providers of NGB courses require staff with higher level qualifications to work for them. Across all the providers in Wales, 75% stated a desire to employ more Welsh speaking instructional staff. With these issues in mind, this study represents a first attempt at aggregating findings directly from national governing bodies relating to place of residence and native country for higher level outdoor qualifications.

Method

At the first stage of this study Mountain Training and the British Mountain Guides (BMG) were contacted directly to see what data they held on nationality, place of residence, language and sex. These organisations responded that they held current addresses of all members as well as information on sex and contact details. None of the organisation held details on nationality and which languages their members spoke.

To determine the native nationality of those holding higher level qualifications and for the purpose of this research, we identified nationality as the place in which an individual was primary and/or secondary educated. This approach is consistent with the other studies in this thesis and previous studies in Wales such as those of Davies (2003) and Thomas (2013).

The BMG, being the highest-level mountaineering qualification in the UK has a smaller number of full members and was therefore easier to investigate. The BMG sent out an information request to members to determine native nationality. They received a 74% response rate from this survey, and with the help of the board, we were able to contact or talk to the correct individuals or friends of those that did not respond to determine their native nationality. The full member list that we used was from 2017 and has since changed due to one death and one newly qualified guide. Co-incidentally, both these members were from the same area of England originally and their current place of residence was in Wales.

Through Mountain Training UK and the Association of Mountaineering Instructors, we were able to use tools such as forums, emails and the database to determine the place of residence of MIC's for the year 2017. Because no data were held on native nationality and because a survey amongst the whole membership was impractical, we used a purposive sampling method. We identified the key individuals within Mountain Training Cymru as our sample to work with and identify native Welsh MIC's from the database. Once these

individuals were identified, we were able to contact them, on an individual level, to ascertain native nationality and Welsh language skills. Although this method was less reliable than with the BMG, as it would be possible to overlook a native Welsh MIC, the numbers of Welsh MIC's are low enough and the community small enough, to be able to make a well-placed conservative estimate.

This data was collected by both the BMG and Mountain Training, it is anonymised and non-sensitive, therefore there was no requirement to get ethical approval for secondary analysis (ESRC Research Ethics Framework, 2018). The data was also evaluated for its utility in secondary analysis through criteria such as the purpose for which it was collected, the period of data collection and the content and methodology of data collection. These were felt to be satisfactory and in line with the research aims.

Results

BMG

There were 128 full members of the BMG in 2017 living in ten different countries. The number of BMG full members living in Wales is 22%. This is second only to England (32%) and ahead of France (18%) and Scotland (17%).

Table 2.1

Place of residence of BMG full members in 2018.

Place of Residence	Number of People	Percentage
England	41	32%
Wales	28	22%
France	23	18%
Scotland	22	17%

Switzerland	7	5%
Canada	2	2%
Northern Ireland	2	2%
Republic of Ireland	1	1%
Australia	1	1%
Italy	1	1%

Seven BMG full members (5.5%) were primary and/or secondary educated in Wales with 1.6% able to speak Welsh. Scotland has a similar population size and similar proliferation of natural resources to Wales and yet has a much higher number of native guides at 16.4% although there are no Irish or Scottish Gaelic speaking guides. The percentage of female BMG full members was 5.5% and none of them are native Welsh.

In addition to the 128 full members, there were 25 trainee or aspirant guides. Trainee or aspirant guides are the titles for guides going through the three-year process of qualifying. Four (16%) trainee or aspirant guides are native Welsh of. If these four native Welsh trainee or aspirant guides qualify as full guides there will be a 1.5% increase overall in Welsh full members to 7%. There are no female native Welsh trainee or aspirant mountain guides. There are two female trainee or aspirant guides (8%) which also shows a slight positive trend towards an improved gender balance.

Table 2.2

Native country of BMG members 2018.

Native Country	Number of People	Percentage
England	89	70%
Scotland	21	16%
Wales	7	5%

Northern Ireland	6	5%
Italy	2	2%
Spain	1	1%
New Zealand	1	1%
Republic of Ireland	1	1%

MIC

In 2017 there were 462 MIC's of which 7.4% (32) were female. There were 119 or 25% of members with a place of residence in Wales with 79 of this number living in Gwynedd or Anglesey and a further 25 living in Conwy and Clwyd.

The estimated number of native Welsh MIC's is 21 or 4.5% of the total number of MIC's. 8.4 % of MIC's living in Wales speak Welsh and 2.16% of all MIC's speak Welsh. There is one female native Welsh MIC.

Discussion

The findings from this survey support the findings in Study 1 and the anecdotal evidence reported by those working within the industry in Wales. Despite Wales being a hub for instructors with higher level qualifications to live and work in, there are proportionately low numbers of highly qualified native Welsh instructors or guides compared to the proportion of members living in Wales.

Interpreting the proportions of native Welsh qualification holders with those from the other home nations is subject to some debate. If we compare the number of Welsh MIC's (4.5%) and BMG's (5.5%) to the proportion of Welsh people living in the UK we find that the number is above the UK proportion. 4.8% of the UK's population live in Wales, 4.7% of

the UK's population is native Welsh, 3.5% of the UK population are native Welsh living in Wales and 0.9% of the UK population are Welsh speaking (2011 census).

These different goalposts provide possible nuances in interpreting these data. What we do see is a vibrant work market in Wales where native Welsh instructors and guides with higher qualifications are in the minority. This finding would suggest that the regions in Wales with these good natural resources for activities and outdoor work, are for some reason not creating the opportunities for local residents to participate and develop their skills in outdoor activities.

If we compare the number of BMG's with the membership of the British Mountaineering Council (the representative body for climbing and mountaineering in England and Wales), approximately 0.1% or 1 in 1,000 members are BMG's. As a qualification pathway, it takes a minimum of eight years for an individual who has started climbing and mountaineering to become a BMG (BMG, 2019). This means that active inclusion and pathways to employment projects introduced by the Outdoor Partnership in North Wales are either unlikely to affect overall numbers of native Welsh instructors with higher level outdoor qualifications, or we must wait longer to see such changes as these projects stimulate cultural change. The changes required to increase these numbers are more likely to come from a grassroots level aimed at helping teenagers achieve their national indicator 8 through outdoor activity participation with perhaps 1 in 1,000 + following the pathway of a BMG.

Including all the MIC's and BMG's able to speak Welsh, we reach 12 individuals. That number is a very small proportion of individuals serving the 562,000 Welsh speakers (2011 census) living in Wales. Further, some of the Welsh speaking MIC and BMG members

surveyed stated lacked confidence to run activity sessions through the medium of Welsh, meaning that the number of confident Welsh speaking instructors is in effect fewer than 12.

With the priority of this study being identifying indicators of participation and positive role modelling, the most dramatic finding does not relate to native Welsh BMG's or MIC's but to the lack of female MIC's and BMG's. Only 5.5% of BMG's are female with no female Welsh BMG's, and with only 7.4% of MIC's are female. Remarkably Britain is ahead of most other members of the IFMGA (International Federation of Mountain Guide Associations) with regards to gender balance, with only 2% of French mountain guides female (ENSA, 2017), but there is a very long way to go before gender parity is reached.

As the first study in this area in Wales it is hoped that these data can be used for monitoring and evaluation purposes at timely intervals to measure changes in the proportion of female and native Welsh individuals with higher level outdoor qualifications. With the long-term qualification pathways of MIC's and BMG's we may yet be too early to identify changes that have come about from projects set up by the Outdoor Partnership which has been operating for fifteen years. Looking to the future one positive is that there are two aspirant female BMG's and three aspirant native Welsh BMG's. These people will likely have a significant effect on the proportions of the membership if and when they become full members. Overall, these results suggest that there are failings within Wales at matching skilled local jobs within the outdoor industry with local people and there may be a trickle-down impact due to this on local grassroots participation.

CHAPTER 4:**STUDY 3: AN EXAMINATION OF OUTDOOR ACTIVITY PROVISION IN
SECONDARY COMPREHENSIVE SCHOOLS IN WALES****Abstract**

With 96% of 11-16-year-olds in Wales attending a secondary comprehensive school, its impact on encouraging participation in sport and outdoor activities is crucial. Considering the low participation rates in outdoor activities in Wales by its native population, this study explored the provision of outdoor activities in secondary comprehensive schools in Wales that offer access to outdoor activity opportunities. We discovered that amongst our cohort of 23 schools, provision was infrequent with the majority of provision taking place outside of curriculum time for the lower year groups of 7 to 9. Teachers run the majority of provision in schools, often as volunteers, and hold a variety of outdoor qualifications such as the Summer Mountain Leader and Rock Climbing Instructor. The Duke of Edinburgh award forms a core part of secondary comprehensive outdoor activity provision with 96% of schools responding that they provided access to the award.

An examination of outdoor activity provision in secondary comprehensive schools in Wales

Outdoor activities range from widely inclusive pursuits such as hill and mountain walking, through to activities considered to be ‘extreme’, such as rock climbing, or restrictively expensive, such as sailing. Whilst walking, running and cycling could be argued to be relatively easy and safe to develop proficiency in through self-discovery, more complex, or ‘extreme’ outdoor pursuits, may need to be introduced to beginners by those already proficient at the activity either for reasons of safety, or for opportunities to use equipment that beginners may not own. Because of this, there must be a range of gateway opportunities available for people to be introduced to outdoor activities if the desire is to increase participation in sport for health and well-being reasons. The lifelong viability of outdoor activities from childhood to senior citizenhood in areas of abundant natural resources is just one reason why developing or improving pathways to participation is important.

With over 95% of 11-16-year-olds in Wales attending a secondary comprehensive school, its role in encouraging and offering access to outdoor activity opportunities may be critical to engaging teenagers in outdoor activity pursuits. Studies 1 and Study 2 of this thesis observed that despite the work opportunities and natural resources for outdoor activities in Wales, the number of native Welsh people employed in the outdoor sector, or qualified to work in the most skilled jobs in the sector, is low. This study investigated gateway opportunities in schools, what its effect may be on overall participation and what are the main barriers to provision in schools.

Whilst employment of native Welsh coaches, instructors and guides of outdoor activities does not necessarily mean that opportunities for native Welsh people to participate in outdoor activities is low, it could be argued that the low number of native instructors may have an effect on participation and that the low numbers participating creates fewer native

instructors. Fewer opportunities at an early age for native Welsh people to participate in outdoor activities lead to few people considering a career working in the outdoor industry. On the flip side, fewer native Welsh role models working in the industry means that not only are there fewer opportunities for local people to participate in outdoor activities, but also that participating in those activities is less of a cultural ‘norm’.

In the first two studies we investigated outdoor activity providers and qualification holders, however, it is also important that we investigate gateway provision to these activities and how they may affect mass participation. Perhaps the most significant gateway opportunity to participating in outdoor activities is through school provision. With 99% of children in Wales attending school and 96% of all schools in Wales being state funded (Welsh Government, 2017), investigating provision of outdoor activities in secondary comprehensive schools in Wales was thought to be the best way of measuring what opportunities are available for nearly all young people in Wales.

The education system represents an important opportunity to educate and influence young people and consequently their families, in leading active and healthy lifestyles. Comprehensive schools are the best opportunity the state has to directly intervene and influence young people in the UK through the national curriculum and children are given opportunities through Physical Education lessons to help them meet their national indicators of sporting participation.

As detailed in the general introduction, Wales has amongst the highest levels of childhood obesity and diabetes in the UK. School sport is an important way of combatting such health issues. In Sport Wales’ most recent ‘School Sport Survey’ (2018) there was an increase in participation from 2011 to 2015 and the figures stabilising between 2015 and 2018. The figures show that 48% of 7 to 16-year olds participate in sport three or more times

per week in addition to timetabled PE lessons. The figures also suggest that the participation gap for hard to reach groups is closing. The lowest participating ethnic minority group, Asian British, has seen a 4% increase to 40% between 2015 and 2018 whilst 45% of children with a disability or impairment were participating in sport three or more times per week, a 5% increase from 2015.

Whilst this report highlights improvements in participation it also shows the stubborn inequalities that exist between the most and least deprived groups with 42% of children from the most deprived households taking part three or more times a week (in addition to timetabled PE lessons). There are also more boys participating regularly (50%) than girls (46%). The survey also found that on average 99 minutes per week are allocated to PE in schools, below the Welsh governments' recommendation of two hours. Findings from the 2018 Further Education Sport Survey show that regular participation of three or more times per week drops to 43% for the age group above the school sports survey.

There is also a drop off in participation with age from primary through to secondary education and then again in further education to early adulthood (Sport Wales, 2018). It is interesting to reflect that the popularity of different activities change as people get older. Sport England's 'Active Lives Children and Young People Survey' (2018) discovered that active play was the most popular sport for the younger age groups, whilst team sports increase in popularity as children get older to becoming the most popular activities from Year 7 to the age of 16. For adults, the most popular activities change after secondary education to individual sports, be they gym based, walking, running or cycling (Sport England, 2018). These figures lead to a pertinent question: are we preparing our young people in schools for sports that are difficult to maintain into adulthood?

With the aim of this survey to improve our understanding of gateway opportunities to outdoor activities through secondary education, the Outdoor Partnership contacted secondary comprehensive schools across Wales to answer a three-page survey. The survey asked questions relating to frequency of provision, who organises and provides these activities and barriers to provision amongst other targeted questions. The answers should help understand where levels of provision are currently, for which age groups and how provision can be increased in schools that currently offer provision, or introduced in schools that don't currently offer access to outdoor activities.

Method

Participants

There were 210 secondary comprehensive schools in Wales in 2018. The Outdoor Partnership successfully contacted 173 secondary comprehensive schools and had 23 (13%) responses from schools that provided outdoor activity opportunities for their pupils. Thirteen schools responded from North Wales and 10 from South Wales. A further breakdown of responses by county can be found in Appendix B2. Eighty per cent of schools responded to the survey in English whilst twenty per cent responded to the survey in Welsh. No private schools or colleges were contacted as part of this survey. Eighty-seven per cent of respondents had a sixth form and one school served pupils from 3-18.

As the data from this survey conducted by The Outdoor Partnership is anonymised and non-sensitive, there was no requirement to get ethical approval for secondary analysis (ESRC Research Ethics Framework, 2018). Data collected by The Outdoor Partnership was kept safe from unauthorised access; hardcopies were stored in a locked office and computer files were encrypted. The data were also evaluated for their utility in secondary analysis through criteria such as the purpose for which they were collected, the period of data

collection and the content and methodology of data collection (Tripathy, 2013). These criteria were felt to be met to a satisfactory level and were in line with the research aims.

Measures

In this survey, the Outdoor Partnership wanted to measure when, where and which year groups participated in outdoor activities. The survey contained questions on frequency of provision, who delivered this provision and whether schools had access to LEA outdoor centres. Examples of these questions are: How often can pupils participate in outdoor activities provided by the school (year group breakdown)? When do outdoor activities take place? Who provides the outdoor activities in your establishment and what percentage of the whole time, which is dedicated to outdoor activities, do they provide?

We also wanted to discover how many schools from this cohort provided opportunities for the Duke of Edinburgh award scheme, school trips with outdoor related activities and a BTEC in outdoor activities. Finally, there were questions relating to whether or not staff members at the school had outdoor qualifications, whether the school wanted to provide more outdoor activity opportunities for their pupils and what the main barriers to providing outdoor activity opportunities for their pupils were. The complete English version of the survey can be found in Appendix B1.

Procedures

School contact details were gathered via local authority websites. The Outdoor Partnership sent emails with a bilingual survey in a word document, a link to a bilingual survey on google forms and a participant information sheet. Emails were addressed to the main school office to be forwarded to the DofE coordinator or head of PE. The surveys were distributed in early January 2018 and the survey was closed in mid-April 2019. Data was

pulled from Google Forms in an excel spreadsheet and hard copies were entered manually into the spreadsheet for analysis.

Results

The Outdoor Partnership had 23 responses to this survey out of a total of 210 secondary comprehensive schools in Wales (173 contacted). The low response rate can be put down to the survey being non-essential for school staff to respond to, but we can also speculate that many schools contacted do not provide outdoor activity opportunities and therefore did not respond. The relatively low response rate may affect the results found here, whilst staff members who chose to respond to this survey are likely to have a bias in favour of outdoor activities. Thus, all results need to be treated with some caution.

Frequency of provision

The majority of outdoor activities occur during curriculum time (39%) with 35% of activities taking place during extra-curricular time and 26% during residential visits. Outdoor activities are most likely to occur once a year, with Year 8 pupils most likely to participate and sixth formers least likely to participate (see Figure 3.1).

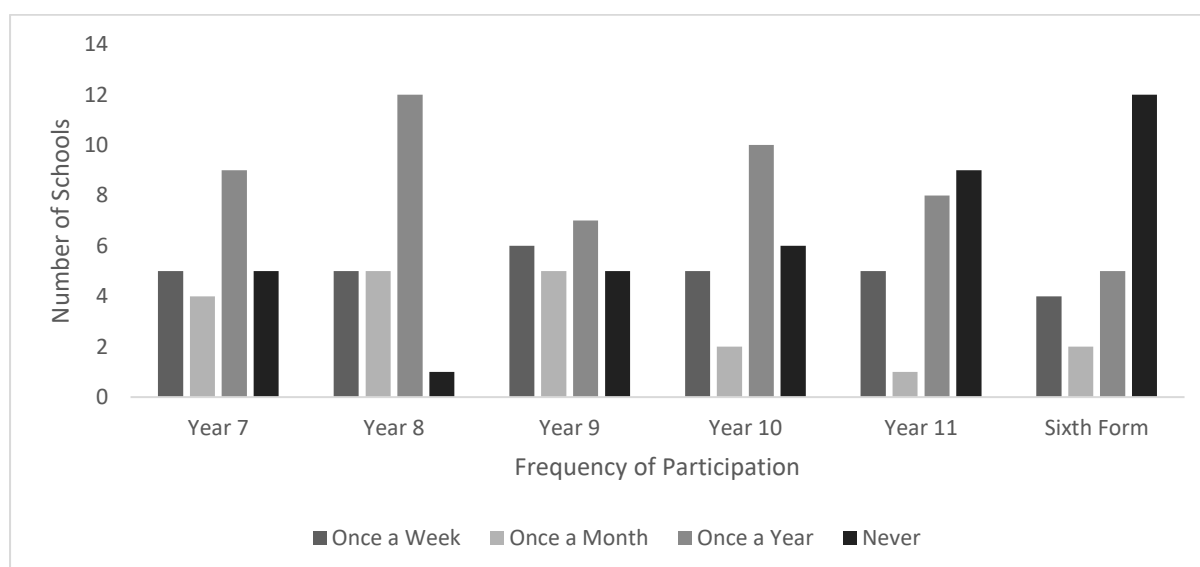


Figure 3.1. Frequency of participation across secondary comprehensive school year groups

and sixth form. X axis shows responses from each school in relation to four frequency counts for separate year groups.

Frequency of provision compared with free school meal average (FSM). We further separated the findings to explore potential relations between FSM's and frequency of provision. We obtained the most up to date FSM averages for each school from the Estyn (school's inspectorate for Wales) website.

Our cohort average of the number of pupils on FSM was 16.8%, broadly in line with the Welsh average of 17%. Schools who reported participation as 'Once a Week' as the most common reply had a 13.4% FSM average whilst schools who reported participation as 'Never' as the most common reply had an FSM average of 17.8% (Once a year had a 18.6% FSM average and once a month had a 13.8% FSM average). These findings suggest that there seems to be a relationship between frequency of provision and a lower percentage of students on FSM, but insufficient data points to confirm this finding via statistical analysis (see Figure 3.2).

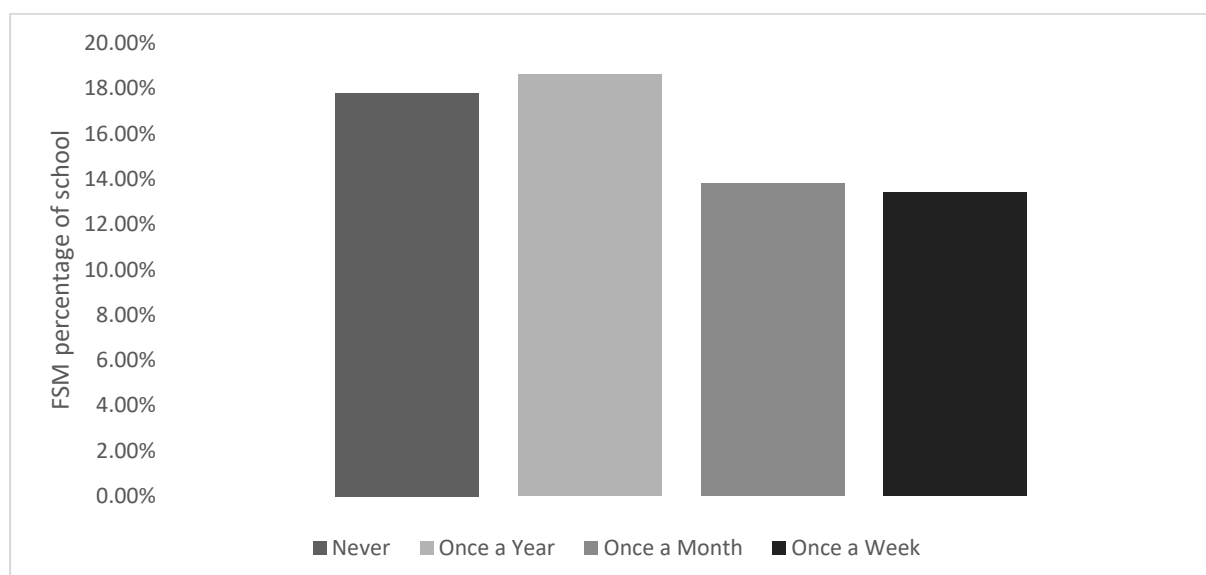


Figure 3.2. Free school meal (FSM) average, compared with frequency of provision. The

bars demonstrate the proportion of FSM's in each frequency segment with the lowest percentage FSM average being once a week.

Activity provision

School employees were most likely to deliver outdoor activities with 8 schools providing 81-100% of activities compared with 4 UK outdoor activity providers providing 81-100% of activity provision.

Private outdoor activity providers. Of the 23 schools that responded to this survey, 48% (11) used a private outdoor activity provider. The schools reported that 37.5% of these providers were able to deliver activities bilingually whilst 46% of these providers offer residential experiences. The majority of schools (62%) pass activity costs on to parents whilst 15% of schools partly cover the costs and 23% completely cover activity costs.

Local Education Authority (LEA) outdoor education centre provision. Of the 23 respondents, 15 (65%) stated that they had access to an LEA outdoor education centre. Unfortunately, following this survey, an LEA outdoor centre in Powys closed down meaning that three schools in this survey will no longer have access to an LEA pushing the percentage down to 52%. This response needs to be treated with some caution as access to local authority outdoor centres is nuanced (see Study 4 in thesis).

Duke of Edinburgh (DofE) award provision. Of the 23 schools that responded to this survey, 96% (22) also provided opportunities to participate in the DofE award. The one school that didn't provide DofE opportunities expressed a desire to do so in future. Of the 22 schools that provide DofE, 82% run the award through school staff volunteering whilst 18% employ an external provider.

Seventy-one per cent of schools have a limited number of spaces available for students and 71% of schools don't cover staffing costs for teachers outside of school hours.

Eighty-six per cent of schools that ran a DofE award scheme had members of staff with outdoor qualifications.

BTEC provision. Three schools offer a BTEC level 2 in outdoor activities.

School trips with outdoor activities. Ninety-six per cent of schools run a school trip with some form of outdoor activity. The majority of these trips were ski trips with prices ranging between £750 and £1,000.

Barriers to provision

We asked schools to select the three main barriers to provision in a drop-down list. From this, schools most consistently selected five main barriers to outdoor activity provision. These were: lack of time within curriculum (68% of respondents), lack of finance to buy in specialist equipment (68%) , lack of finance to use outdoor activity providers (64%), lack of transport (48%) and lack of outdoor activity qualified teaching staff (52%).

School staff with outdoor qualifications

Despite a perceived lack of qualified teaching staff being seen as a barrier to provision, a high number of school staff in this cohort held outdoor qualifications. Eighty-two per cent of schools (19) have staff with an outdoor qualification. Qualifications cover a range of activities such as walking, mountain biking, kayaking, stand up paddle boarding and climbing. Forty-five qualifications were held across the schools, although some teaching staff held multiple qualifications. Examples of these qualifications were 15 schools with a Summer Mountain Leader qualified member of staff and nine schools with either a Single Pitch Award or Climbing Wall Award qualified member of staff. Further, there were staff members with more advanced outdoor qualifications; three staff members held the Mountain Instructor Award (MIA) and three held a British Canoeing four star plus leadership qualification.

Of the North Wales schools, 75% had benefitted from Outdoor Partnership funding to complete an outdoor qualification. Forty per cent of schools provide some form of funding for members of staff to pursue outdoor qualifications and 100% of respondents reported being interested in completing an outdoor qualification if costs were covered.

Discussion

Secondary comprehensive schools provide a pivotal opportunity in educating and encouraging young people to lead a healthy and active lifestyle whilst introducing lifelong participation pathways. In Wales, as detailed in the introduction, the 2010s have been a decade which has seen an increase in participation amongst teenagers, but has also seen that the participation divide between the most and least deprived groups has been maintained, whilst boys still participate more frequently than girls. It is also noteworthy that team sports are most popular in secondary school whilst individual sports become the pre-eminent pursuits of adults. Under an egalitarian system where individual choice is a key to participation, it could be argued that having increased opportunities to participate in individual sports through secondary education could boost participation beyond school leaving age, especially when pursuits are matched to what resources are available in the locality. Outdoor activities can bridge the gap between those currently participating in traditional sport and those who don't and schools providing more diverse sporting participation opportunities are likely to see an increase in frequency of sporting participation amongst their students.

Frequency of provision

The results of this study suggest that provision of outdoor activities is irregular, with activities most likely to occur once a year, with Year 8 pupils most likely to participate and sixth formers least likely to participate. Furthermore, only 39% of provision occurs within

curriculum time which means that the majority of provision can be deemed to be optional rather than a compulsory opportunity for students. These findings suggest that although opportunities to participate in outdoor activities are available for pupils, they may be little more than taster sessions for those in the lower years of secondary school rather than opportunities to progress and develop independent skills. Where opportunities to pursue outdoor activities on a more regular basis are available, they are often in extra-curricular time, which may in its own way, limit which socio-economic groups attend activity sessions due to commitments of working families and the higher cost of not using school transport.

There also seems to be a relationship between frequency of provision and a lower percentage of students on FSM but insufficient data points exist for schools running outdoor activities once a week/month for stronger evidence to be obtained. This potential relationship between frequency of provision and FSM is interesting because it goes against what some local education authority outdoor centres feel that they have witnessed; schools with higher proportions of pupils on FSM often have larger budgets and therefore more money to spend on other resources/activities which could include better staffing ratios and resources. Perhaps these anecdotal accounts never had any basis – it is also possible that squeezed school budgets in recent years have re-directed any extra budget into maintaining core services such as staffing. Given the possible relationship we have identified, more affluent families might identify ‘magnet schools’ to send their children to, which offer more choice and have an increased rate of academic attainment. However, despite the appeal of these suggestions they remain speculative and require confirmation in a larger sample before more substantive claims can be made.

The connection between school staff and provision

The main providers of outdoor activities were school staff which highlights an important issue regarding school staffing and provision of outdoor activities. Indeed, many of the school staff who provide outdoor activity opportunities do so outside of curriculum time and are not paid to do so. In the comments section at the end of the survey, respondents made it clear that they were passionate about the outdoors and considered it to be important to provide outdoor opportunities for pupils. Although a substantial number of the respondents were PE teachers, many were not, suggesting that, in our sample, provision of outdoor activities is not always driven by the sports department at schools. Understanding that teaching staff are the main drive of provision will be an important part of developing pathways for more schools to provide outdoor activity opportunities for pupils.

The findings also showed a depth and breadth of outdoor qualifications held by teaching staff throughout the schools. Teaching staff held outdoor qualifications in 82% of schools. Whilst this may be an anomalous finding amongst our cohort, because school staff were interested in responding to the survey, the results are likely to be replicable, to some degree, for other schools offering activity provision due to the need for qualified staff to deliver the DofE award. The Summer Mountain Leader (SML) was the most prolific qualification and was held by a staff member in 15 out of the 23 schools. With the direct application of this qualification to the delivery of the Duke of Edinburgh award this may be no surprise, but it does show the amount of time and effort that teaching staff have put into completing qualifications, with the median time between registering and completing the SML being 3.46 years (William Hardy, Mountain Training PhD researcher, personal communication, May 3, 2019).

Forty-five separate outdoor qualifications were held by staff in the nineteen schools although this figure included some teaching staff who held more than one outdoor qualification. The most popular qualifications were the SML for hill walking and the Single

Pitch Award (SPA) or Climbing Wall Award (CWA) for rock and indoor climbing.

Qualifications covered a broad range of activities from hill walking and rock climbing to kayaking, mountain biking and stand up paddle-boarding. A small minority of the qualifications held were more advanced outdoor qualifications that require a high level of experience and commitment in time for individuals to complete, such as the Mountain Instructor Certificate and Advanced Sea Kayak Leader qualification. This particular finding indicated that some members of teaching staff would be highly experienced and able to provide professional levels of provision more normally associated with reputable outdoor activity providers. It is also notable that 86% of schools that provided opportunities to complete the Duke of Edinburgh award had teaching staff with outdoor qualifications.

This wealth of experience and pool of voluntary enthusiasm amongst teaching staff could provide a key to increasing participation within schools. Of the North Wales schools that responded, 75% had benefitted from Outdoor Partnership funding for training or qualification courses for teaching staff. Despite the high upfront cost of providing free spaces on the Summer Mountain Leader (circa £340) or Rock Climbing Instructor (circa £210) as examples of hill walking and climbing leadership awards, the social return on this investment could be very high indeed buying teaching staff into the process of outdoor activities, whilst also enthusing them to share their skills and new learnt passion with students. To put these costs into perspective, employing a private outdoor activity provider to work with a school group for a day will cost in excess of £250. Communications with private outdoor activity providers such as the AlpBase Academy who work with independent and international schools often highlight the importance of making the experience of a residential outdoor course a profoundly positive one for teaching staff as well as students because staff will be the ones to book again in the future. This is just as important with comprehensive school staff and it would appear that free or subsidised opportunities for teaching staff to participate in

outdoor qualifications is likely ensuring continued and improved provision for students. The desire is also there from schools with 40% currently providing some form of funding for members of staff to pursue outdoor qualifications and 100% of respondents would be interested in completing an outdoor qualification if costs were covered.

Duke of Edinburgh Award

Aside from teaching staff with outdoor qualifications, the other main indicator of provision within secondary schools appears to have been access to the Duke of Edinburgh award, with 96% of respondents providing the award and the one that didn't stating that it would like to. Just over 82% of schools run DofE through staff volunteering whilst 18% employ a private provider. Further, 71% of schools don't cover school staffing costs outside of school hours for the DofE. Seventy-one per cent of schools have a limited number of spaces available for students.

With such a high connection between provision of outdoor activities and the Duke of Edinburgh, we can see the level of importance that the award now has in Wales. The award provides three different levels and a framework for staff and students to move through. It also provides benefits for inclusion in personal statements when applying for university places and the possibility of extra UCAS points through volunteering as part of the award. Despite the well documented advantages of the award to students, it has been criticised for its cost and popularity amongst the middle classes and those wishing to continue into further education. Petersen & O'Flynn (2007) investigated the award as a technology for neoliberal subjectification. They found that the award was often used as 'value adding' (i.e. to look good on CV's) and therefore more desirable to university applicants. The criticisms levelled at the award also make the award desirable for the masses through its clear individual benefits for engaging with volunteering and learning new skills in the outdoors. It is an

egalitarian award scheme, but when places are limited, who participates or is encouraged to participate is often affected by individual enthusiasm, as well as teacher or parental influence, which can make it inclusive or exclusive depending on the individuals driving the award at the school.

It should also be noted that the scheme has started to cost more money for providers of the award, to the detriment of schools that run the scheme on a voluntary basis. Whilst a private provider can profit from running the scheme in a number of different schools, hence a provider fee being levied, individual schools may have to pay the same fee for voluntary provision and these costs are often passed on to students. This has led to two neighbouring counties being left in the position where schools in Gwynedd offer provision under an umbrella provider and do not have to pay for access to the award whilst schools in Conwy must pay to become providers at an individual level, or employ an external provider. Unless the school or local authority in Conwy fronts up the cost, participation for the identical award and level of provision is likely to cost students more in a school in Conwy than it is for a school in Gwynedd, as little as ten miles from each other.

Local education authority and private providers

Through the survey we gained an understanding of what opportunities were available through private or local authority provision. Of the 23 respondents, 65% stated they had access to an LEA centre however, with the closure of Staylitttle LEA in Powys following the closing date of the survey, this number has now dropped to 52%. We investigate LEA provision in more detail in Study 4.

Private outdoor activity providers also play a role in provision at schools with 48% of respondents stating that they had used a private provider. The majority of schools (62%) pass activity costs on to parents whilst 62.5% of providers are unable to deliver activities

bilingually. Although access to bilingual provision wasn't identified as a main barrier to provision, it could prove to be a barrier for some schools that don't currently provide outdoor activities. This is because some first language Welsh secondary schools may have limited to no choice in Welsh language provision which may act as a deterrent to the school and students.

Barriers to provision

The three main barriers to provision identified were a lack of time within the curriculum (68%), lack of finance to buy specialist equipment (68%) and a lack of finance to use outdoor activity providers (64%). Lack of finance for equipment and activity providers is a key issue with schools lacking the money to fund such activities and equipment from its internal budget and being unwilling to pass on the high costs to parents, some of whom may be unable to afford the activities.

With 61% of outdoor activities happening outside of curriculum time there is likely to be little change unless residential activity weeks become more popular (unlikely given the demise of the LEA centre, see Study 4) or outdoor activities are prioritised within the national curriculum. Currently adventurous activities lie within the PE curriculum, but the extent of this can be as little as one orienteering sessions around the school grounds. In Scotland, the curriculum for excellence provides some free curriculum time where the equivalent of one lesson a week can be used to pursue extra curriculum activities from the Duke of Edinburgh award and outdoor activities to further maths or art. Without a major change in the direction of education policy or the direct inclusion of outdoor activities in the PE curriculum we are unlikely to see any change in Wales.

Summary

This study has provided insight into what level of provision of outdoor activities there is across a cohort of secondary comprehensive schools who run or provide outdoor activity opportunities for their pupils in Wales. The findings show infrequent provision, with the majority of provision outside of curriculum time for the lower year groups of 7 to 9. Teachers run the majority of provision in schools, often as volunteers, and hold a wealth of outdoor qualifications that they can draw from whilst delivering activities. With 96% of schools that responded to this survey also stating they provided access to the Duke of Edinburgh award we can see it is a core part of outdoor activity provision although places are still limited for pupils.

Improvements in provision may be made through providing more opportunities for staff to undergo qualification pathways and bringing their knowledge and enthusiasm back to the schools. Providing subsidies for schools to buy specialist equipment and access local authority or private provision of outdoor activities. Encouraging the uptake of the Duke of Edinburgh award in schools which may work as a pathway to increased outdoor activity provision.

Finally, it is worth reiterating that this study is non-exhaustive and only 23 secondary comprehensive schools out of a total of 210 in Wales (173 contacted) replied to this survey. The low response rate is likely a result of the survey being non-essential for school staff to respond to, but we can also speculate that many schools contacted do not provide outdoor activity opportunities and therefore did not respond. Using DofE as an indicator to provision, we can see that there are just under 20,000 young people aged between 14 and 24 participating in the DofE. With 56 licensed organisations throughout Wales, this would suggest that the number of secondary schools engaged with the Duke of Edinburgh award to be substantially lower than the 210 middle and secondary comprehensive schools that are currently open.

The key information to take away from this study appears to be frequency of provision and how to engage with schools in future to encourage and improve provision of outdoor activities. A comprehensive study, in coordination with local authorities and the Duke of Edinburgh award scheme, would give a more thorough insight into the levels of provision of outdoor activities in secondary comprehensive schools throughout Wales.

CHAPTER 5:
STUDY 4: CHANGES IN LOCAL EDUCATION AUTHORITY OUTDOOR
CENTRES 1978 – 2018

Abstract

In this study we explored changes in the number of local education authority outdoor centres (OEC's) across a 30-year period from 1978 and 2018 in Wales using a purposive sampling method data. Thirty-three per cent of all OEC's in Wales have closed down during this period leading to a potential loss of up to 146,300 pupil activity days. We found that 38% of Welsh run OEC's closed down during this period compared to 32% of English run OEC's in Wales. Twenty-five per cent of existing OEC's in Wales are run by Welsh local education authorities. Fifty per cent of closed centres no longer operate as outdoor centres whilst the other half are under private or third sector ownership and continue to operate as outdoor activity centres. These data indicate drastic changes in the provision of local education run outdoor activities across Wales and further highlight the need for alternative pathways to outdoor activity provision.

Changes in Local Education Authority Outdoor Centres 1978-2018

In the mid-1960s to the late 1970s, the idea of local authority outdoor education centres (OEC's) blossomed from a liberal fantasy into reality. One of first outdoor centres to be purchased by a local authority was Ogwen Cottage in Snowdonia in 1964 by Birmingham City Council and this was followed in the next decade by predominantly English local authorities purchasing properties in national parks across the UK to run as outdoor education centres (See Appendix C1).

The reason these centres were opened, reported on many OEC websites 'about' pages, was to provide residential experiences for all school aged children to learn about the outdoors and participate in outdoor recreation (AHOEC, 2019). The idea was simple – outdoor learning for all. This egalitarian system was funded by local authorities in the same period as the Tripartite System (secondary moderns, grammars & technical colleges) of education in England and Wales was largely abolished. These centres were a product of their time. They were well funded with full time teaching staff employed to run outdoor programmes (McDonald, 2018), and schools within the local authority could book when to come, for how long and for which year groups.

The demise of local education authority outdoor centres has been well reported in Wales, with news stories, petitions, loss of provision for schools and staff redundancies (Daily Post, 2014). Whilst these closures have made the headlines, there has been no attempt to measure the cumulative effect and loss of provision, to school aged children in the UK, or indeed what happens to the centres following closure. Many theories have also been tied to the closures of OEC's (Riden, 2018) and the issue has been politicised in local authorities by rival factions aiming to lead local councils (BBC News, 2014). There are, perhaps, three key periods that may have precipitated the demise of local authority outdoor centres.

The 1988 Education Reform Act under Margaret Thatcher's Conservative government, has been described as a pivotal turning point in education policy. Under this act government funds moved directly to schools, rather than being prescribed through local education authorities. This in turn meant that the funding model for outdoor education centres had to change, as the budget was no longer centralised by the local authority which in many cases had fully funded these centres. In 2001 the foot-and-mouth epidemic had a major effect on outdoor centres where outdoor activities were hugely curtailed in the natural environment and outdoor courses had to be restricted or cancelled. This led to a difficult period for many providers of outdoor activities and the closures of some outdoor businesses (Knight-Jones, Rushton., 2013). The Great Recession of 2008-9 has also been labelled as a cause for centre closures (Riden, 2018). Budget constraints on local authorities meant that the system of subsidising loss-making outdoor education centres was no longer financially, or politically acceptable and outdoor learning services were squeezed or closed down. Further, the budget cuts felt by schools may have also limited the number of schools able to take children to centres, limiting income to these centres and suggesting a lack of need from school's for outdoor education.

Although OEC's have closed in Wales, there has not been an empirical investigation of the extent of closures. Thus, in order to fully understand the magnitude of changes and associated events we need to undertake more comprehensive assessments of when closure occurred. The main aim of this study was to identify; what changes have occurred in the industry between 1978 and 2018, the loss of provision over this period and whether there are any similarities or differences between the closure rate of English run OEC's in Wales compared with Welsh run OEC's.

Method

In this study we used a purposive sampling method to draw from the experience of people who have worked within the OEC industry from its inception to the present day. Our sampling criteria was individuals who had worked for or managed OEC's in Wales between 1978 and 2018. In the first stage the Outdoor Partnership were able to draw a complete list of local authority outdoor education centres (OEC's) from the Adventure Activities Licensing Authority (AALA) that are open today. We then interrogated this list to understand their ownership status; only OEC's owned and managed by local authorities were included in this study. We were also able to build in a timeline of when these centres first opened and their capacity.

Our next step was to build up a comprehensive list of OEC's that were open in 1978, a date chosen as it appeared to mark the end of the purchasing of new OEC's by local authorities in Wales. We started by checking that the centres on our present-day list were open in 1978. Our next step was to search for OEC centre closures in Wales on the internet which yielded more recent closures but not historic ones.

The Outdoor Partnership then contacted our sample through a key individual within an organisation called Associated Heads of Outdoor Education Centre (AHOEC), on the 23/08/2018. AHOEC is an association of leaders in outdoor learning. Its members hold, or held, senior provision in outdoor learning provision across the UK. This homogenous purposive sample shared the same characteristics that would be suitable for our study and provide insight into the period of our investigation.

AHOEC then disseminated our questions to its members with a request for them to contact the Outdoor Partnership directly with any answers. Our questions were: Can you identify any OEC's that were open in 1978 and not present on the attached list? At what date

did this OEC open? At what date did this OEC close? What was its capacity? Which local authority did it belong to? Over the week following the 23/08/2018 we received sixteen responses from AHOEC members.

Having received these responses using an expert sampling method, we then pooled the information into a single table, cross-checked results where possible and filled in missing information via online searches and further contact with our sample. This table was then analysed and used in the data we present in the results section. Responses from this purposive sampling method were from heads of outdoor centres that dated back as far as the late 1960s; thus any feedback they provided was cross-checked before it was inserted into our table. Despite this, it must be stated that the further we venture back in our timeline, the less reliable the data became and therefore it is possible an OEC that no longer exists has not been obtained via our purposive sampling method. Whilst through our sample and extensive literature and online searches we tried to ensure that no entries were missed it is possible, although unlikely, that some were.

Results

Between 1978 and 2018 33% (10) of all OEC's in Wales closed. Of these centres, 50% (5) no longer operate as outdoor centres and 50% of are now run as private or third sector outdoor centres. When dividing these centres into Welsh local authority owned and English owned centres, it is evident that 32% (7) of English owned outdoor centres (hereafter known as "English" centres) have closed, whilst 38% (3) of Welsh owned outdoor centres (hereafter known as "Welsh" centres) have closed. Figure 4.1 provides a breakdown of these closures.

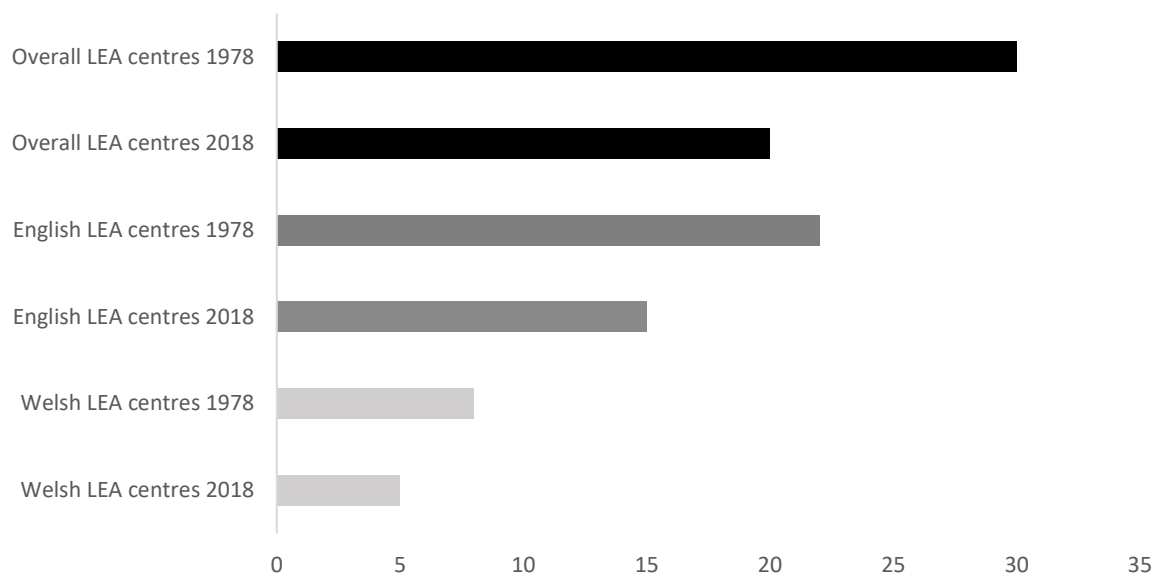


Figure 4.1. LEA outdoor centre closures in Wales between 1978 and 2018 for all LEA’s, Welsh LEA’s and English LEA’s.

Figure 4.2 displays the number of centres present at yearly intervals between 1978 and 2003. It is evident that there were no centre closures between 1978 and 2003, but there was a steady decline between 2003 and 2018 of 33% of the OEC’s in Wales.

We separated the results to find that centres began closing in 2003 and have continued to do so at a steady rate between 2003 and 2018 (Figure 4.2). If centres continue to close at their present rate, we can expect there to be no more OEC’s in thirty years-time by 2048. Currently 25% of LEA outdoor centres in Wales serve Welsh primary and secondary schools, this is slightly down from 27% in 1978.

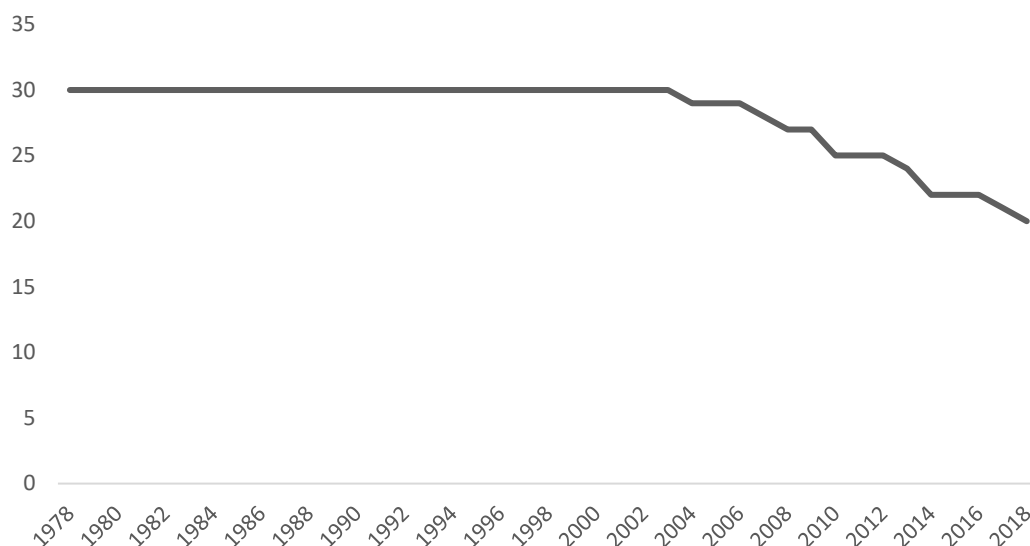


Figure 4.2. Number of OEC's in Wales by year.

The average maximum capacity for OEC's within our sample is 86 people with a range between 32 and 400. At maximum capacity, a centre is able to provide activities for 77 students a day, with a staff ratio of approximately one teacher to ten students. Assuming full capacity of 77 students every week day there would be 385 student days a week with typically 190 school days per year, or 14,630 pupil days a year for the average outdoor centre at full capacity. The closure of ten OEC's in this period means that one third of provision has been lost, or potentially 146,300 pupil days for centres at full capacity. OEC's operated by Welsh local authorities may provide up to 73,150 (5 centres multiplied by 14,630 pupil days) pupil days per year. For Welsh schools therefore we can estimate that a maximum of 43,890 pupil days have been lost at outdoor education centres.

Discussion

Local education authority outdoor centres (OEC's) have long been considered an excellent method of teaching young people about the outdoors and giving them opportunities to learn new skills and engage with outdoor pursuits. For some students it may be the only time they are subjected to outdoor activities, for others it may be the beginning of a new

passion, whilst for a minority it will be a continuation of skills and activities learnt and developed with friends, families or outdoor clubs, such as the scouts or cadets. OEC's provide a crucial and egalitarian opportunity for young people to be subjected to the outdoor environment and also provide opportunities outside of Physical Education lessons to participate in physical activities.

Between 1978 and 2003 there was little change in the opening and closures rate of OEC's in Wales. Following 2003, there was a dramatic and sustained rate of closures of OEC's in Wales, with one third of all OEC's closing down. There has been a slightly elevated closure rate of Welsh OEC's to English OEC's at 38% compared with 32%. The estimated loss of provision for Welsh primary and secondary schools is up to 43,890 pupil days whilst the overall loss of provision in Wales may be as high as 146,300 when all OEC's are taken into account. This seismic decrease in provision will have major effects on what schools can offer. Whilst other private or third-sector centres are available for hire, the costs are often much greater per pupil, therefore eliminating the egalitarian system of OEC's. With 50% of closed centres being bought into private or third-sector ownership, this is certainly the case, however such centres must change their operating model to accommodate break-even or profit-making models. Furthermore, the ethos of private or third-sector centres may be less educational than OEC's, meaning that they are more likely to offer general activity days and taster sessions aimed at returning customers rather than the potentially staler educational philosophy of OEC's.

Only 25% of OEC's in Wales are operated by Welsh local authorities, giving 11 of 22 Welsh local authorities access to OEC's. One is run directly by Cardiff City council whilst the remaining four centres are shared in sets of two by Gwent Outdoor Education Service (supported by four local authorities) and the North Wales Outdoor Education Service (supported by six local authorities). These centres have shared access for primary and

secondary schools and are unable to provide activities for all schools in the local authority areas. It is notable that 75% of OEC's in Wales are English local authority owned, on top of the presumably large number of English OEC's spread across England and Scotland. There are 343 local authorities' areas in England and therefore one would expect there to be a greater number of OEC's, however it is difficult to divine whether or not English local authorities' value OEC's more than in Wales due to an incomplete database.

We can only speculate about the reasons for the closure of OEC's from 2003 onwards. Whilst the foot-and-mouth epidemic of 2001 and 2008-9 Great Recession are likely contributors to the eventual closure of centres, the seeds for closure are likely to have been set prior to this period. We can consider that the 1988 Education Reform Act may have had a major contribution to later closures, although not in itself significant enough to provide the death knell for OEC's. The loss of centralised funding during this period meant that for the first-time centres had to change their model from being supported in the same manner as a school, to a break-even or profit-making model, although building costs were often still maintained by the local authorities. This change in funding provision meant that schools provided the centre with payments for activity and accommodation. It was then thought that as schools felt the squeeze from budget cuts (Andrews & Lawrence, 2018), fewer schools decided to use OEC's (Ogwen Cottage Foundation, 2010) and often schools that did passed on costs to parents, somewhat diminishing the original idea of the OEC. As fewer schools came, OEC's were no longer able to break even and local authorities looking to make budget cuts themselves sought to end continued provision of outdoor learning services and OEC's. The foot-and-mouth epidemic and Great Recession whilst in themselves, perhaps not significant enough events to close centres, were perhaps the final straw for those OEC's and local authorities already under financial pressure. Whilst this preliminary analysis may

provide some understanding of centre closures; a more thorough research project will need to be made to understand the nuances and similarities shared by the ten closed OEC's.

In this study we examined changes in the number of OECs between 1978 and 2018 using a purposive sampling method. The problems with this method, as highlighted in the method section, is the lack of reliability as we move further back in the timeline of the history of OEC's. Whilst the Adventure Activities Licensing Authority (AALA), hold information on up to date and recently licensed centres, data with older local authority centres which may have closed down earlier in the timeline of OEC's. We were fortunate to receive support and responses from the Associated Heads of Outdoor Education Centres (AHOEC) with members who were instrumental in opening centres in the 1960s and 1970s and have remained within the industry in Wales for the entire period this study investigates. It is hoped that this collective knowledge provides a complete, or near complete, history of centre openings and closures during the period from 1978 to 2018.

Finally, we must question how important these results are. Whilst there was a 38% decrease in provision of OEC's in Wales during this period, there were also new private and third-sector centres opening and, in some places, replacing former local authority owned OEC's. Due to the fact many OEC's now run on a break-even or profit-making system, they can be similarly priced to private or third-sector providers who can cut overheads or in many cases, own no property from which to run a residential experience. Modern OEC's are unlike their ancestors due to the higher cost of provision, and the slow chipping away of their financial and educational liberties has eroded the sense of place that OEC's once had. Early OEC's were once run by qualified teachers with outdoor qualifications, whilst modern OEC's are more often operated by staff that only hold outdoor qualifications, perhaps reflecting a different teaching ethos within the centres. With that said, many local authorities provide subsidised access to OEC's for pupils on free school meals and trusts are set up with bursary

schemes that can be applied for by the poorest families. OEC's still provide the first residential opportunities for many students, who will stay away from their families for the first time. They also expose pupils to the outdoor environment and encourage outdoor activity participation.

With a potential maximum number of 73,150 Welsh pupil days per year, the benefits of such centres remain significant as part of a broader education and exposure to new activities. Using the education system to expose young people to the outdoor environment remains the best way to influence all the people of Wales to the benefits of outdoor activity, Welsh culture and the nations natural resources. Whilst the utility of OEC's in serving this purpose under the current system is up for debate, OEC's still provide the most immersive experience for those young people fortunate enough to attend the minority of schools across Wales who use OEC's.

CHAPTER 6:**STUDY 5: AN INVESTIGATION INTO OUTDOOR ACTIVITY CLUB PROVISION
AND PARTICIPATION IN WALES****Abstract**

Outdoor activity clubs provide a key link into the provision network of outdoor pursuits. Clubs are often free, or highly subsidised, providing opportunities to participate in outdoor sports for beginners through to experts. This study investigated the contribution that outdoor activity clubs in Wales make to provision of outdoor activities. We reviewed survey findings from 38 outdoor activity clubs across Wales. With an average of 74 members per club and 2,805 club members in our cohort, we were able to estimate that the total number of people engaged in regular participation through outdoor activity clubs is in the low tens of thousands. There were an average of eight volunteer leaders per club, equating to £17,280 of paid for provision per club, per year. The average cost of membership was £48.33 with 84% of clubs having room for more members and 58% of clubs having seen an increase in membership over the previous five years. North Wales has seen a seven-fold increase in outdoor activity clubs, from 15 to 101 since 2003. Despite these positive trends, outdoor activity clubs also face challenges with low levels of membership from BAME groups and poor access for the disabled, with 45% of clubs reporting being unable to cater for people with disabilities. Volunteer leader and coach training and qualifications are currently available for North Wales based clubs through the Outdoor Partnership and the social return on investment for any funding towards training volunteer leaders is high. Outdoor activity clubs provide a cost-effective means to help individuals meet their national indicators in physical activity and any growth in the number of clubs or in average club size would provide significant health and wellbeing benefits for people in Wales.

An investigation into outdoor activity club provision and participation in Wales

Outdoor activity clubs provide a key link in the network of outdoor activity provision in Wales. They are cheap, cater for mixed aged groups and genders from different socio-economic groups and help increase the number of people achieving regular participation in physical activity. Due to the complex, expensive and sometimes dangerous elements of some outdoor activities, it is often best for beginners to learn from experts rather than through trial and error learning or self-discovery. This accentuates the need for gateway and development pathways for beginners to access outdoor activities.

Outdoor activity clubs also provide a hub and community which benefits members in ways other than physical health. For example, a meta-analysis by the medical University of Vienna found that active membership of a sport club has a positive effect on mental health (Medical University of Vienna, 2017). A systematic review of the psychological and social benefits of participation in sport for children and adolescents found that not only did community sport participation improve physical health, but also enhanced psychological and social outcomes (Rochelle, 2013). In terms of physical health, active club members in Wales are likely to participate in physical activity more frequently than the average population (Sport Wales, 2017). Outdoor activity clubs may not suit all individuals, but the ability for clubs to dovetail from school and paid for provision to put people on a pathway towards independent participation is vital in creating a robust and far-reaching provision network for outdoor activities in Wales.

With Wales' exceptional natural resources, outdoor activity clubs can cover a range of activities in the outdoor environment. These sports include rock climbing, mountaineering, kayaking, sailing and sub-aqua. There are also facilities available for clubs who may not be able to participate in the outdoor environment in their locality throughout the year due to

environmental constraints; these include dry ski slopes, man-made surfing facilities, indoor climbing walls and BMX parks.

North Wales has historically had low numbers of outdoor activity clubs. In 2003, only an estimated 15 non-university or school clubs were in existence (Davies, 2013). Such a small number of clubs may have contributed to a culture of low levels of participation in outdoor activities that was discussed in Study 1. The Outdoor Partnership's 'Find a Club Page' has a comprehensive list of clubs in North West Wales, from this list, it is evident that the number of outdoor activity clubs has risen dramatically in the period following 2003 and in this same period, the number of people participating in outdoor activities in Wales has also increased (NRW, 2017).

Sport Wales' State of the Nation report (Sport Wales 2016-17), stated that 23% of adults in Wales reported being a member of a sports club whilst 10% of adults in Wales reported volunteering in sport. There remains a gender gap in sports club membership with 29% of adult males reporting being a member of a sports club compared with 17% adult females. In this study, we wanted to identify whether these trends were evident in outdoor activity clubs by investigating the membership and levels of volunteering within clubs and what barriers to provision are evident.

Method

Participants

The Outdoor Partnership has gathered contact information for outdoor activity clubs in Wales since 2004. The Outdoor Partnership holds a database of clubs in North Wales providing contact information of all clubs in the region which was used to engage with participants. Extensive internet searches were made using council and national governing body websites through 'Find a Club' pages and Canoe Wales agreed to distribute the surveys

on our behalf to their affiliated clubs. Sport Wales and the Outdoor Partnership also published news stories to promote the research.

In total, 79 clubs were successfully contacted in Wales. Sixty percent (47) of the clubs contacted were North Wales based. We received 38 responses to our survey giving us a 48% response rate. We received 31 responses from clubs in North Wales and 7 from South Wales clubs – this is likely to be reflective of the relationship between the Outdoor Partnership and North Wales clubs which prompted a better response rate from clubs in the north.

As the data from this survey conducted by The Outdoor Partnership is anonymised and non-sensitive, there was no requirement to get ethical approval for secondary analysis (ESRC Research Ethics Framework, 2018). Data collected by The Outdoor Partnership was kept safe from unauthorised access; hardcopies were stored in a locked office and computer files were encrypted. The data were also evaluated for their utility in secondary analysis through criteria such as the purpose for which they were collected, the period of data collection and the content and methodology of data collection (Tripathy, 2013). These criteria were felt to be met to a satisfactory level and were in line with the research aims.

Measures

In this survey the Outdoor Partnership asked questions relating to participation and provision of activities provided through outdoor activity clubs. The key subject areas were club type, membership statistics, cost of provision, barriers to provision and voluntary or paid for coaches and leaders. Examples of these questions are as follows: Membership numbers and details (breakdown in boxes: sex, juniors, seniors, disabled, beginners)? Funding and affiliations (breakdown in boxes)? Club leaders and/or coaches (breakdown in boxes)? Does the club have room to take in more members? Does the club have an operating base? Does

the club provide equipment for members? See Appendix D1 for a complete English language copy of the survey.

Google forms was used for the survey with multiple-choice, long and short form questions. A word document and paper version of the survey was also available on request. An identical Welsh and English version of the survey was available on google forms as well as the word and paper version.

Procedures

Clubs were contacted by the Outdoor Partnership bilingually by email with links to the Welsh and English survey. We received 35 responses to the English survey and 3 responses to the Welsh survey, the results of which were entered into a spreadsheet for analysis.

Results

Membership

The majority of responses to this survey came from kayaking and rowing clubs (12), climbing and mountaineering clubs (8) and cycling clubs (5). The low response rates from snow sports and archery suggests that data from these sports should be treated with caution as they may not be generalisable. A further breakdown in club type can be found in figure 5.1.

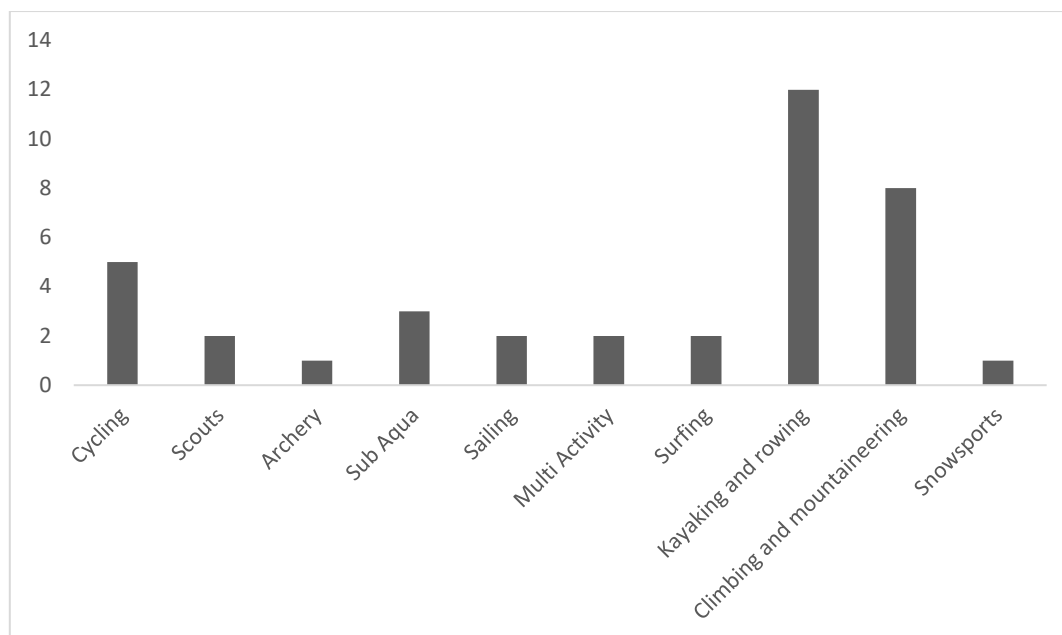


Figure 5.1. Club response by activity.

The average membership size was 74 members per club. There were 2,805 members in total between the 38 clubs. Club membership comprised of: U18 female (12.4%), U18 male (18%), senior female (28.6%) and senior male (41%). The relative proportion of U18 females and senior females to males is the same in each age category (i.e., there are approximately 1/3 more males than females in each age category). This similarity in gender representation suggests that there is no relative drop off or increase in participation from junior to senior for either males or females in the sports we received data from.

When comparing different activity clubs, it is evident that there is a male dominance in membership across the spectrum of activities. This is particularly pronounced in sub-aqua, sailing and cycling, whilst snow sports, surfing, mountaineering and kayaking and rowing have a greater level of gender parity as shown in figure 5.2.

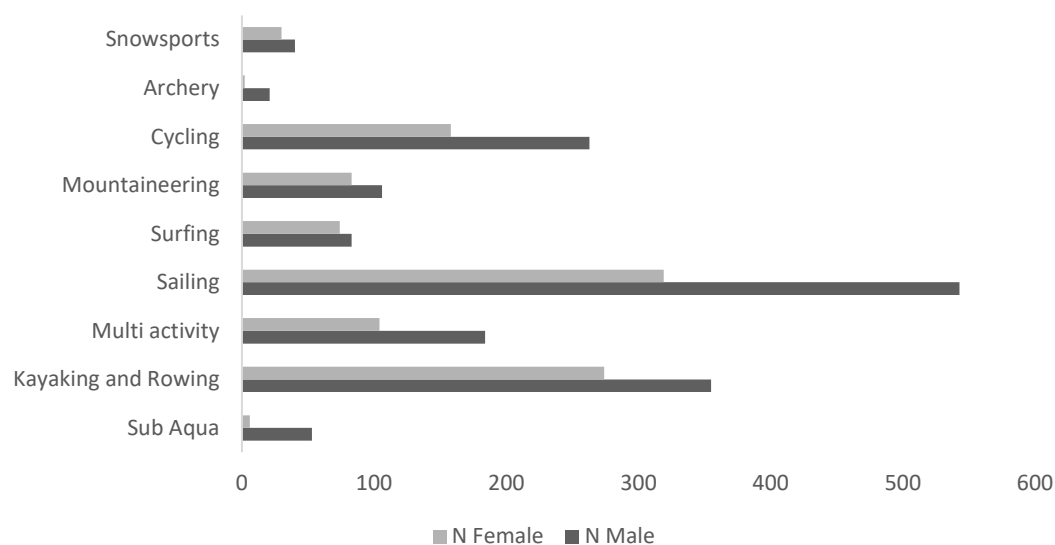


Figure 5.2. Type of outdoor activity club compared with membership sex.

BAME groups appear to be under represented in clubs. There was a 0.7% BAME average in outdoor activity clubs with 74% of clubs having no BAME members. These findings compare to a Welsh average of 2.9% BAME. We can also compare the BAME average within the county's that clubs responded from using data from the last census (ONS, 2011), which were lower than the Welsh average at 2% BAME. Outdoor activity clubs generally cater for mixed groups of children and adults as well as women and men, however in our cohort there were also women's only, U18 only and senior only clubs. The breakdown of who the clubs catered for was: juniors 82%, seniors 90%, disabled 55% and beginners 87%. The majority of clubs have room to take in more members at 84% with 82% of clubs able to provide equipment for members. Just over half (55%) of the clubs had an operating base/clubhouse.

The proportion of Welsh speaking club members is relatively low. We asked clubs to respond about proportions of their members who could speak Welsh, grouping their members in quarterly brackets of Welsh speaking. Fifty per cent of clubs responded that only 0-25% of club members spoke Welsh. A further breakdown is available in figure 5.3.

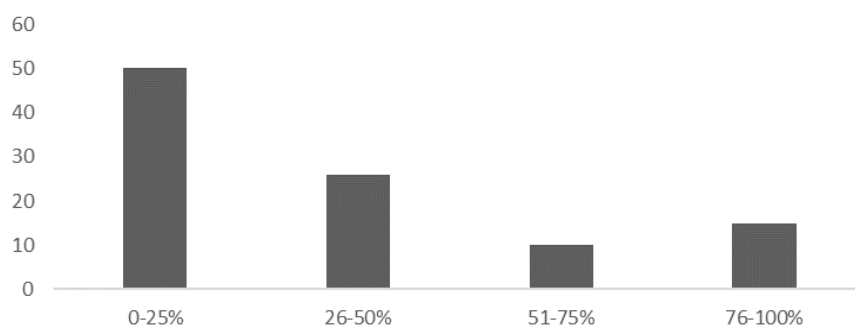


Figure 5.3. Proportion of Welsh speaking members of outdoor activity clubs. Y axis proportion of clubs, X axis, proportion of club members able to speak Welsh.

The average membership fee for outdoor activity clubs is £46.33 with a high of £147 (sailing) and a low of no fee for four clubs (walking, surfing). There are membership discounts for the following groups provided by some clubs: discount for students 24%, discount for U18s 5%, discount for pensioners 5% and discount for unemployed 5%.

In Figure 5.4 we can see that membership fees for sub-aqua, sailing multi-activity and archery are the highest. When we compared the data from figure 5.4 with the cost of individual membership to governing bodies, there seemed to be a relationship between cost of individual NGB membership and the membership fee to the corresponding activity club (BMC £19.97 whilst RYA is £45). This would suggest that, for example, a sailing club, with its higher NGB membership fee, was likely to be more expensive than a mountaineering club, where the NGB membership fee is less than half that of the Royal Yachting Association (RYA).

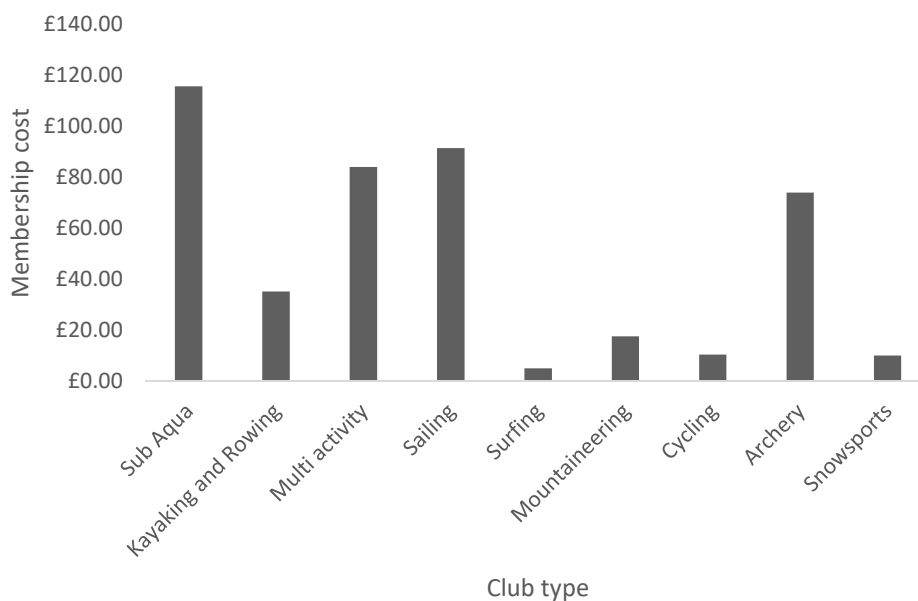


Figure 5.4. Cost of outdoor activity club membership by activity club type.

Ninety percent of clubs are affiliated to a governing body. Reasons for not being affiliated were stated as the high cost of affiliation to some governing bodies. These affiliations are either taken per member, or more normally as an annual fee. Reasons for the high proportion of affiliated clubs include insurance, club support and individual membership benefits.

The majority of clubs (86%) are primarily funded by the membership fee. Some of these clubs have received additional finance from Sport Wales, community funding, NGB's, local authority and lottery funding. This additional finance is often earmarked for certain projects such as leader training or purchasing group equipment. Fourteen percent of clubs have income generation streams which are provided from property or club services. There is a breakdown of these funding streams by the clubs in figure 5.5. It should be noted that some clubs are run on a purely voluntary basis with no membership fee and little extraneous equipment.

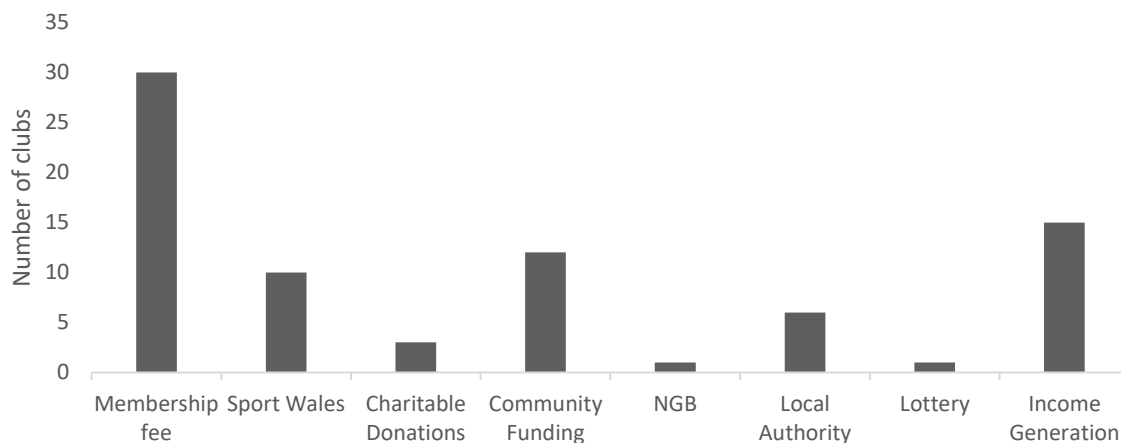


Figure 5.5. Club funding streams.

We explored the relationship between club size and membership fee to understand if larger clubs, with potential for greater income, consequently had a lower membership fee. We discovered no relationship between club size and fee as evident in figure 5.6. The two outliers (marked in figure 5.6 with arrows) were the sailing clubs which have a captive audience from inside and outside the local areas for the facilities the clubs offer.

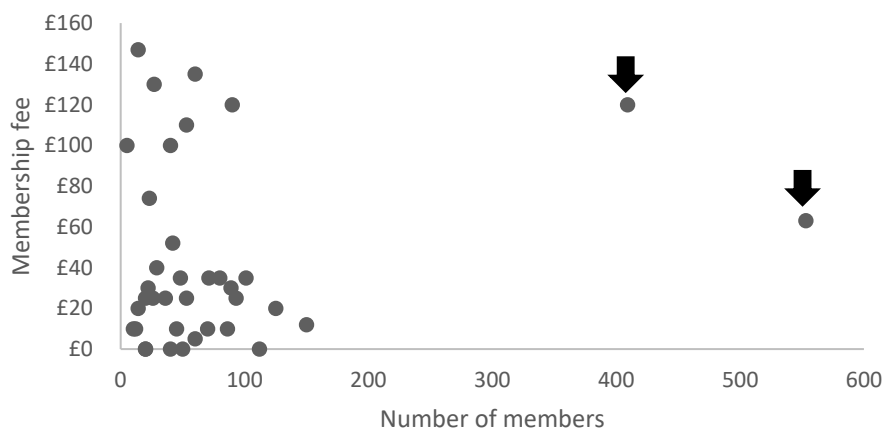


Figure 5.6. Club size compared with membership fee. Each grey circle reflects a club

Volunteering

Amongst the 38 clubs, 19 leaders or coaches were employed on a freelance basis. There was an average of eight voluntary leaders or coaches in each club. Out of the 38 clubs

there are 187 voluntary male coaches or leaders and 119 female coaches or leaders. Of the 187 male coaches, 158 held qualifications. Of the 119 female coaches, 91 held qualifications. These results show that 10% more voluntary male coaches hold an outdoor qualification than female coaches. Seventy-four percent of clubs expressed a need for more voluntary leaders.

We compared the volunteer leader proportion of membership with activity type. Sub-aqua, kayaking, rowing, multi activity and mountaineering are most heavily dependent on volunteer leaders with surfing, archery and sailing least reliant on voluntary leaders. There appears to be a relationship between the proportion of volunteer leaders and the professional ratios of outdoor qualifications. For example, rock climbing has a professional ratio of between 1:1 and 1:6 (Mountain Training, 2019) whereas surfing can be managed at a higher ratio. As is evident in figure 5.7, activities such as sub-aqua, kayaking, multi activity and mountaineering which require high professional ratios have a higher proportion of volunteer leaders. Sailing clubs are somewhat different in that membership often includes access to the club house, launch site and other facilities and suggest that club members are likely to be more independent. Figure 5.7 doesn't take into account which activity clubs employ more leaders or coaches.

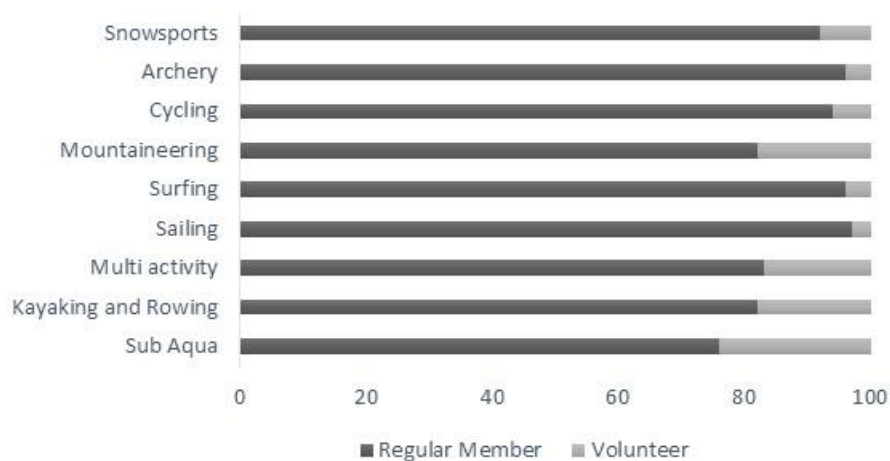


Figure 5.7. Volunteer leader proportion of membership compared with activity. The X axis shows a percentage make-up of the club membership with regards to regular members and volunteer leaders.

Barriers to provision

There has been an increase in membership over the last five years for 58% of clubs whilst 21% of clubs have seen no change and 21% of clubs have seen a decrease (figure 5.8).

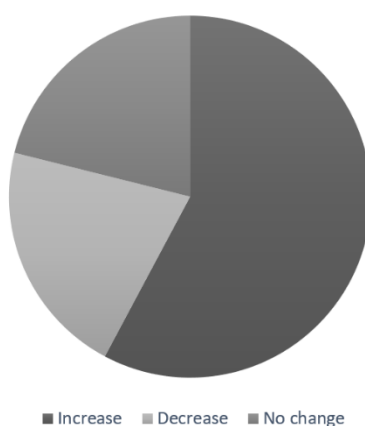


Figure 5.8. Change in membership numbers in the period 2013-2018

The main reasons limiting the growth of clubs were: not enough volunteer leaders/coaches (45%), retention of members (40%), recruiting new members (45%), lack of

young members (25%), facility limitations (45%), equipment limitations (35%), transport limitations (15%), and the cost of training coaches and leaders (30%). Further, we discovered that: 84.2% of clubs expressed a need for greater funding and grant opportunities for clubs, 84.2% of clubs expressed a need for volunteer leader training and qualifications, 34.2% of clubs expressed a specific desire for funding to pay for new equipment and better. All respondents thought that Wales would benefit from increased support for community-based outdoor activity clubs.

For clubs in North Wales, extra questions were included by the Outdoor Partnership as part of their annual club survey. They found that 74% of the 31 North Wales based clubs have received some level of support from the Outdoor Partnership over the last 10 years. Half the clubs benefited from training and qualifications for beginners (50%), 25% from grant support and 8.3% with advice from development officers.

Discussion

Outdoor activity clubs provide a crucial service for those caught between pursuing activities independently and those who use outdoor activity providers. The comparatively low average cost of membership for these clubs (£46.33), the combined expertise and experience of club members and the equipment hire opportunities, bring activity provision within reach of those who may not otherwise be able to participate. Clubs can be used as a stepping stone for individual independence in activity participation, or provide a community in which members can remain as lifelong members, in an environment conducive to lifelong participation and meeting national indicators for physical activity.

Membership

The findings in the survey suggest that outdoor activity clubs in Wales, can and do, engage with large numbers of people, providing health and wellbeing benefits that suggest a

major social return on any investment made towards outdoor activity clubs. With an average of 74 members per club and 2,805 club members in our cohort we can estimate that the total number of people engaged in regular participation through outdoor activity clubs is in the low tens of thousands considering that in North Wales alone there are over 101 outdoor activity clubs (The Outdoor Partnership, Find a Club 2019).

Forty-one percent of club members are female, a much higher proportion than many other sport clubs in the UK which are largely male dominated. Despite this, there is still positive progress to be made in bridging the gender gap. The findings also showed that there was no change between the proportion of under 18 females to under 18 males and the proportion of senior females to males. This finding suggests that there might not be legacy issues preventing senior females from joining outdoor activity clubs; a strong defence of club provision given the drop off in regular participation rates for women as they age compared to men – however our sample may not be representative of the situation in Wales. Snow sports, mountaineering, kayaking and rowing appear to have a more equal gender balance in participation whilst sub-aqua, sailing and cycling had the worst. When we compare gender balance in outdoor activity clubs with football clubs, the most popular team sport for women, we find that despite the likely positive shift in gender balance in women's football over the last seven years, outdoor activity clubs have a far more equal gender balance than football clubs with 41% female compared with 5.6% female (Women's Sport and Fitness Foundation, 2012).

BAME groups appear to be under represented in outdoor activity clubs at 0.7%, however the regions the clubs responded from also have a low proportion of BAME groups living in the catchment area at only 2%. Whilst outdoor activity clubs are, in general, able to cater for mixed groups of adults, young people and beginner through to advanced participants, they are not always able to cater for disabled people, with 45% of clubs stating

they were not able to cater for the disabled and 2% of all membership stating they had some kind of disability. Clubs clearly have significant room for improvement in this area, however the Disability Sport Wales 'insport' club programme is making inroads into participation for all. It offers a tiered system of awards for clubs depending on their level of provision for disability sport and also provides guidance on how to achieve this. Whilst participation and inclusion rates for disability sport are currently low in outdoor activity clubs, it is likely we will see improvements in this area in the future.

Just over 58% of clubs have seen an increase in membership over the last five years whilst 84% of clubs have room for more members suggesting that outdoor activity clubs are both popular and have room to accommodate increasing numbers of members if participation increases.

Club Structure

Outdoor activity clubs are primarily funded by the membership fee and run by volunteers, although some clubs receive additional finance from Sport Wales, community funding, NGB's, local authority, lottery funding and have paid roles or honorariums for members sitting on committees. This additional finance is often earmarked for certain projects such as leader training or purchasing group equipment. A few clubs have income generation streams which are provided from property or club services. A minority of clubs provide free membership and any overheads are covered by the club leaders/committee.

The range of membership fees is from no cost to £147 whilst the average cost is £46.33. This price suggests reasonable affordability for club members, however the cost for larger families can put people off joining and relatively few clubs provide discounts for students, pensioners or families. There also seems to be a relationship between the higher cost of membership to a club and the higher cost of membership to governing bodies.

Leaders and coaches

Outdoor activity clubs can only operate due to an enthusiastic, experienced and varied array of volunteers. Whether volunteer time goes into committee and management time, or through leading, coaching or instructing, the contributions provide a measurable and vital benefit to each club.

The Outdoor Partnership have estimated the value of each volunteer leader or coach as £2,160 (Tracey Evans, CEO Outdoor Partnership, personal communication, 2019). This amount is based on an average contribution of three hours a week of volunteering, 40 weeks a year at an equivalent cost of £18 an hour compared with the median day rate for an instructional position in the region of £140. Using these estimates for the 38 clubs in this cohort alongside the 306 volunteers, the contribution that volunteer leaders and coaches make is the equivalent of £660,960 if provision was paid for, or £17,280 per outdoor activity club, per year. These figures suggest that any support or financial stimulus that outdoor activity clubs are provided with, will bring a significant social return on investment. The Outdoor Partnership provide subsidised training and qualification opportunities for volunteer leaders or coaches. These leaders must commit to a set amount of volunteer time for each club and afterwards they have the option to continue volunteering, which many choose. The results showed that 74% of North Wales based clubs have received support from the Outdoor Partnership whilst 39% of clubs have received support with regards to the training of volunteer leaders and coaches. This increase in the number of volunteer leaders in turn allows clubs to expand their membership, whilst the qualification process should also improve the delivery of skills by volunteer leaders.

There are 11% more male volunteer leaders than female volunteer leaders and 10% more male voluntary leaders and coaches hold an outdoor qualification than females. These

figures are broadly in line with the gender balance identified across the membership, however increasing the number of female volunteer leaders or coaches may help increase the overall female membership. It is also interesting to draw from these results that fewer female volunteer leaders and coaches hold an outdoor qualification. Just over 74% of clubs expressed a need for more voluntary leaders which suggests the need is there for further support to put individual club members through qualification pathways and providing subsidies for these will help increase the uptake. Relatively few clubs employ leaders or coaches which could suggest a lack of knowledge of where to find relevant people, a lack of need, or finance, to bring in external and paid for experience.

We also compared the volunteer leader proportion of membership in different club types with a view to identifying clubs or activity types with a greater need for volunteer leaders. Sub-aqua, kayaking, rowing, multi-activity and mountaineering are most heavily dependent on volunteer leaders with surfing, archery and sailing least reliant on voluntary leaders. There appears to be a relationship between the proportion of volunteer leaders and the professional ratios of outdoor qualifications with different activities. For example, rock climbing has a maximum ratio of 1:6 going down to 1:2 or 1:1 for more technical outings (Mountain Training, 2019), whilst surfing and archery have less prescriptive ratios for best practice.

Barriers to provision

Whilst 58% of outdoor activity clubs have seen an increase in membership in the last five years, 21% have seen a decrease and many clubs struggle to sustain or increase their membership. The main reasons identified limiting the growth of clubs were a lack of volunteer leaders/coaches, recruiting new members and facility limitations. Further to these findings, 84% of clubs expressed a need for greater funding and grant opportunities and 84%

of clubs expressed a need for volunteer leader training and qualifications. Given the potential social return on investing in outdoor clubs, providing extra support, financial or otherwise, could improve participation and help more people achieve their national indicators for physical activity.

Summary

Given the contribution of outdoor activities to health and wellbeing benefits for large groups of people and the relatively minimal level of financial support from local authorities and the state, outdoor activity clubs provide a cost-effective means to increasing levels of regular participation across a diverse range of people living in Wales. With the vast and varied natural resources that provide world class venues for outdoor or extreme sports, outdoor activity clubs can help to break the cultural vicious circle that has seemingly limited local and community participation in rural parts of Wales, but there is clearly work to do to better fund and support clubs.

CHAPTER 7: GENERAL DISCUSSION

This chapter discusses the findings from the research contained in this thesis. First, I summarize the main findings and identify similarities and differences across the five studies. I then discuss theoretical and applied implications followed by strengths and weaknesses of the research. To finish I make suggestions for future research directions and where opportunities may lie in boosting participation in outdoor activities in Wales.

Summary of research findings

The overarching aim of this thesis was to understand if Wales is using its natural resources to their full potential for the health and well-being of future generations. In so far as our studies have shown, Wales could do more to promote and increase participation in its natural resources for Welsh people. Whilst by no means comprehensive, the results detailed in this thesis provide a baseline for measuring provision and show a mixed message with regards to provision of outdoor activities.

In Study 1, we examined the status of outdoor activity providers in Wales to understand the make-up of providers in terms of their native and non-native staff across different areas of the workplace. We found that on a national level, the proportion of the workforce that was recruited locally was low, with only 34% of all staff being native Welsh. Amongst the instructional staff, this was lower still with only 26% of staff locally recruited. We also found that South Wales employed more local recruited staff than North Wales. In North West Wales, where the number of locally recruited instructional staff was historically very low, results indicated significant increases in locally recruited instructional staff between 2003 and 2013 and again from 2013 to 2018. Examining the percentage of Welsh speaking staff by job role indicated that 19% of instructional staff could speak Welsh, whilst 47% of managerial and support staff could speak Welsh. Additionally, outdoor activity providers stated a need for more Welsh speaking instructional staff, with 56% stating they had trouble

finding Welsh speaking staff and 75% stating they would like to employ more Welsh speaking staff. Fifty percent of respondents stated that the reason for not employing Welsh speaking staff was the lack of qualified Welsh speaking outdoor instructors.

With regards to gender, the outdoor workforce in Wales is largely male dominated, with 60% male compared to 40% female working across all job roles. However, when we divided job roles by gender, we found that 69% of permanent instructional staff were male, and 70% of freelance instructional staff were male. In North West Wales, results demonstrated a six percent increase across time, with 37% of the entire workforce female in 2013 to 43% in 2018; the biggest increases evident were in managerial and permanent instructional positions. Overall the survey identified that the proportion of native Welsh staff employed by organisations across Wales was low, with particularly low numbers in instructional roles. The number of women working in instructional roles in Wales is also low and very few providers of outdoor activities are able to run activity sessions through the medium of Welsh.

Study 2 examined two of the highest-level outdoor qualifications in the UK, the Mountain Instructor Certificate (MIC) and British Mountain Guide (BMG), to understand where qualification holders lived, where they came from and how many spoke Welsh. We found that Wales, specifically North West Wales, was a hub for our sample groups, with 22% of BMG's and 25% of MIC's living in the country. Despite this, only 5% of BMG's and 4.5% of MIC's are native Welsh. These findings suggest that there is a problem with uptake in these qualifications for native Welsh people.

In the third study we investigated the provision of outdoor activities in secondary comprehensive schools in Wales that offer access to outdoor activity opportunities. Provision from schools was infrequent in our cohort with 35% of provision taking place outside of

curriculum time for the lower year groups of 7 to 9. We discovered a possible relationship between schools with a lower proportion of students on free school meals (FSM) participating in outdoor activities more regularly than schools with a higher FSM proportion. Teachers run the majority of provision in schools, often as volunteers, and hold a variety of outdoor qualifications. The Duke of Edinburgh award forms a core part of secondary comprehensive outdoor activity provision with 96% of schools responding that they provided access to the award. Fifty-two percent of schools in our cohort had access to a local authority outdoor education centre whilst 48% had used a private outdoor activity provider. Overall the results suggest infrequent provision that isn't available for all pupils and year groups within this cohort that actively provides outdoor activity opportunities.

The fourth study explored changes in the number of local education authority outdoor centres (OEC's) across a 30-year period from 1978 and 2018 in Wales using a purposive sampling method. Thirty-three per cent of OEC's in Wales have closed down during this period leading to a potential loss of up to 146,300 pupil activity days. We found that 38% of Welsh local authority OEC's had closed down during this period compared to 32% of English local authority OEC's that were based in Wales. Twenty-five per cent of existing OEC's in Wales are run by Welsh local education authorities serving 50% of the local authorities in Wales. Fifty percent of closed centres no longer operate as outdoor centres whilst the other half are under private or third sector ownership and continue to operate as outdoor activity centres.

The final study (Study 5) investigated the contribution that outdoor activity clubs in Wales make to provision of outdoor activities. We reviewed survey findings from 38 outdoor activity clubs across Wales. With an average of 74 members per club and 2,805 club members in our cohort, we were able to estimate that the total number of people engaged in regular participation through outdoor activity clubs is in the low tens of thousands

considering that in North Wales alone there are over 101 outdoor activity clubs. There was an average of eight volunteer leaders per club, equating to £17,280 of paid for provision per club, per year. The average cost of membership was £48.33 with 84% of clubs having room for more members and 58% of clubs having seen an increase in membership over the previous five years. North Wales has seen a seven-fold increase in outdoor activity clubs, from 15 to 101 since 2003.

This collection of five studies suggests that across Wales, provision and participation in outdoor activities is relatively low amongst the native population. This is despite excellent natural resources for activities and plentiful and varied paid for activity provision opportunities. The buoyant outdoor tourism sector of Wales doesn't appear to be translating, so far, into an increased participation rate amongst local residents, whilst state funded opportunities and incentives for outdoor activity participation appear to have been in decline, as described in Study 4. In North West Wales, there appears to have been some significant increases in participation and working within the outdoor sector amongst local residents between 2003 and 2018, whilst the seven-fold increase in outdoor activity clubs in North Wales provide an increasing number of free, or low-cost opportunities to participate in outdoor activities.

Theoretical implications

In the general introduction we investigated participation in outdoor activities in Wales and discovered that regular participation in outdoor recreation was significantly lower than in other European countries, most notable Norway where 85% of residents participate in outdoor recreation regularly (Norwegian Environment Agency, 2016) compared with 18% in Wales (NRW, 2017). In Wales, women are also much less likely to participate regularly in outdoor recreation when compared with men and this is followed by a proportionately

smaller number of Welsh speakers participating regularly compared with the national average (NRW, 2017). Both of these statistics are interesting to re-evaluate following our studies.

Between 2013 and 2018 (where data exists) there was a significant 6% increase in the number of female staff working for outdoor activity providers in North West Wales. Whilst this is a marked change, there are still 20% more male employees amongst outdoor activity providers overall (60% male and 40% female). When we compared these percentages with the gender divide in outdoor activity clubs, we found a remarkably similar proportion with 59% of members male compared with 41% female. Natural Resources Wales' 2017 and 2014 outdoor recreation surveys also show a slight increase in female participation over the same period where the number of female employees amongst outdoor activity providers increased significantly.

Whilst correlation in no way implies causation, this observation is worth further consideration in future research. It suggests that there may be a link between an increase in provision by women and an increase in participation by women. Similar results were also found with native Welsh instructors and Welsh speakers, where a 2% increase in Welsh speakers between 2003 and 2018, and a 4% increase in native Welsh instructors mirrored changes reported in Natural Resources Wales recreation surveys over the same period. If these links were corroborated with further more specific research they could provide strong evidence to suggest that this culture change amongst outdoor activity providers can also promote a culture change within participation.

Applied implications

The decline in state supported outdoor activity provision has left a vacuum with a currently unknown impact on participation. Whilst we can estimate the number of activity days lost to schools at 146,300, we don't have any measure on the potential long-term impact

of this loss, or to what extent these activity days have been replaced by schools with paid for provision. We can predict that what losses there have been will disproportionately impact those from lower socio-economic groups who would otherwise be unable to afford these subsidised activities, as identified in Study 4 with OEC centre closures and Study 3 with lower frequency of participation from higher FSM average schools.

What this vacuum does suggest, is that there may be a growing gap between those who currently participate in outdoor activities and those who do not. Where current participants may have found improved access, infrastructure and provision to help them participate more regularly, gateway opportunities for non-participants, such as OEC's, have been in decline. The opportunities that were historically available, are no longer available to people living in some parts of Wales. If we consider the transformational physiological and psychological effects that outdoor participation from dog walking to sea kayaking can have, we can assume that these losses have contributed to people leading more sedentary lifestyles, unless these lost opportunities are made up for in other areas.

The decline in state funded provision has left an opportunity for profit making and third-sector providers to move in, as demonstrated by Studies 1 and 5. The average organisation size of outdoor activity providers in North West Wales has increased since 2003 and 2013, likely a by-product of the increase in outdoor related tourism footfall reported by Visit Wales. Third-sector providers have moved in to buy out former OEC's to continue provision for local authorities in some instances, whilst organisations such as The Outdoor Partnership have invested in a diverse range of projects to grow affordable provision, club provision and increase participation. This multi-tiered approach of growing grass roots participation as well as provision through the Outdoor Partnerships pathways to employment project is likely to be a major contributing factor to the significant increase in locally recruited instruction staff in the region between 2003, 2013 and 2018, as well as the

significant increase in Welsh speaking employees between 2003 and 2018 as described in Study 1.

The mixed picture of provision is somewhat difficult to assess without further research. Whilst it is likely that there are many lost opportunities of integrating native Welsh people into leading more active outdoor lifestyles, this is somewhat diminished by the fact that some parts of Wales do benefit from transformational third-sector opportunities to access outdoor activity provision. Whilst there are some worrying trends that have been identified within this thesis, there are also positives to draw from, such as the increase in employment of native Welsh people in the industry in North West Wales, as well as the boom in outdoor activity clubs.

The cornerstone of this thesis was to identify gaps in provision and where current practise is leading to positive results in participation. Our hope is that these data will provide some insight for policy makers and providers to consider and apply to current working practice. Our most valuable data in relation to applied implications come from the North West Wales sub-group, where we can compare results over time.

With the significant increase in native Welsh instructional staff (21%) accompanying a seven-fold growth in outdoor activity clubs between 2003 and 2018, we can identify that there has been a significant stimulus to provision to enable this change. For there to be such an increase in locally recruited instructional staff over this period, there is likely to have been a large increase in participation in the region, possibly as a result of the growth of outdoor activity clubs, the increase in accessibility of facilities, and increased participation rates. How can we replicate such change? Many of the changes instigated during this period were likely a result of The Outdoor Partnerships direct involvement, with projects aimed at facilitating new outdoor clubs, training up voluntary leaders and supporting existing clubs with

equipment subsidies and other member benefits. We pick up on some of the successful initiatives that have brought about such change in the applied implications section of this chapter, which are worth consideration for increasing participation rates across Wales in the future.

Implications for practise

Findings from this research provide five implications for practise which are detailed below.

Gateway opportunities. First, gateway opportunities for participating in outdoor activities must be a priority area for growth moving forward. In particular, these opportunities must target lower socio-economic groups, BAME groups and females.

The Outdoor Partnership's *Pathways to Employment* project has been successful in targeting those from lower socio-economic groups with outdoor activities in two ways. Working with job centres in North West Wales, the Outdoor Partnership provided free training courses for the unemployed or those on low-incomes to develop skills in outdoor activities and work towards gaining outdoor qualifications and potential future work opportunities. In the stage where these clients were preparing for qualification assessments, they would be delivering sessions for clubs to help them prepare, but also providing free opportunities for others who may be unable to afford paid for provision.

Sport Wales has been targeting BAME groups increasingly since 2014, after the then Chief Executive Officer of Race Council Cymru, Uzo Iwobi, stated that she

believes a visible lack of role models from black, asian and minority ethnic (BAME) communities on a professional and coaching level is having an impact on ethnic minority sports participation. "Positive Role Models", p.1., (2014)

Since then, a two-year Sport Wales funded strategic partnership called BME Sport Cymru has been set up, aiming to take a sustainable approach to increasing BME participation in sport across Wales. One of the key elements of this organisation is to create BAME champions as visible role models to others in the BAME community. Despite uptake from sport clubs and communities across Wales, there appears to have been little take up by the outdoor activity sector who may benefit from the methods and funding provided by BME Sport Cymru.

Low participation identified amongst females, as identified in Study 1 with the low proportion of female instructors, Study 2 with the lack of highly qualified female MIC's and Study 5 with the lower proportion of women in outdoor activity clubs, is an especially important target group considering its size. Whilst increasing the number of outdoor activity clubs would be a positive step, outdoor activity clubs having less of a gender gap than many other sport clubs (see Study 5), clubs will not cater for the needs of all females. Increasing female participation will require a culture change that may take many years to achieve and must be attacked through different levels. As with BAME, positive role models, such as professional athletes, outdoor instructors and inspirational 'ordinary people' pushing personal limits or volunteering, must be identified and championed via social media and outdoor news outlets. Campaigns such as Sport England's 'This Girl Can' have helped to change stereotypes. In Wales, Mountain Training have run a Mountaineering Instructor Award (higher level climbing qualification) pilot mentoring scheme for women and set up a 'Women in Mountain Training' Facebook page. It is likely that as a result of such a scheme we are now witnessing more women qualify as mountaineering instructors. Such mentoring schemes could be replicated across different disciplines and help create an inclusive atmosphere with an increase in role models and related increases in participation as a result. Whilst we might not expect to see huge changes in relation to the gender gap, with the historically male

dominated outdoor activity industry, incremental changes over a long period of time may have already started with the increase in the number of female outdoor instructors identified in Study 1 between 2013 and 2018 in North West Wales.

School provision. Second, schools could be better supported with regards to outdoor activity provision. The high cost and lack of time within the curriculum were stated in Study 3 as limiting factors for activity provision. Schools in Wales can look to other countries to adopt curricula that can positively influence creativity and activity. The curriculum for excellence in Scotland provides one free lesson a week for students to pursue non-curricular activities. This can include time to prepare for the Duke of Edinburgh Award, the John Muir Award, practice sport or complete further maths as examples. The introduction of a curricular initiative such as this to Wales, may provide some extra time for students to be engaged through outdoor activities.

The Duke of Edinburgh award is the pre-eminent outdoor award in Britain today. It is also a positive example of a way to engage young people in the outdoors. As teacher comments in Study 3 suggested, the high cost of registering a school as a provider, puts the costs to students up when the award is delivered by teachers in voluntary time. Whilst these provider costs are aimed at outdoor activity providers delivering the award in multiple locations, a school registering is not-for-profit. This has led to schools in Gwynedd delivering the award under an umbrella provider, whilst schools in Conwy pay the full provider fee. Either lowering the provider fee for schools, or supporting the setup of umbrella providers, would make the award cheaper and therefore likely more inclusive for students from all backgrounds.

Within schools, the effect of having outdoor qualified teaching staff was also evident in our cohort, with all but one school having a member of staff with an NGB qualification

and qualifications ranging from beginner to advanced level. A similar system to the clubs volunteer leader system could also hold some value. It would provide professional development opportunities for teaching staff whilst also buying teachers into the idea of delivering outdoor activities for school students inside or outside of school hours. Moreover, the social return on investment in training up teaching staff to complete NGB qualifications is high, even taking into account a generous drop-out rate, with costs for training and assessment often significantly below £1,000, compared to the higher cost £200 and above, of employing external instructors to work with school groups.

Outdoor activity providers in Wales should also look to working with schools, or vice versa, at a lower activity cost, throughout the quiet/closed work seasons of the autumn and winter in Wales. This strategic partnership would provide work opportunities for outdoor activity providers throughout the closed season whilst also enabling affordable provision opportunities for schools who no longer have a local authority OEC to attend. Outdoor activity providers may also benefit from changes to The Adventure Activities Licensing Authority (AALA), to make it easier and more cost effective for small providers to work with young people. The current AALA model favours larger providers working with young people on a regular basis because the license fee cost can be split between a greater number of clients. Further, an increased awareness of low participation in outdoor activities amongst practitioners could stimulate greater efforts to target and access groups not currently participating.

Finally, with this implication and the diminishing number of OEC's in Wales, it is important to safeguard future provision of extant centres. Current centres at threat of closure should look to the Future Generations Wales Act (2015) for their defence, which states quite clearly the importance of balancing short-term needs (austerity within local authorities) with the needs to safeguard the ability to also meet long-term needs (health and wellbeing goals).

Outdoor activity clubs. The third applied implication would be to increase the number of outdoor activity clubs in Wales. The seven-fold increase in the number of outdoor activity clubs in North Wales has had a profoundly positive effect on participation rates and making participation more accessible. These effects could be duplicated if the rest of Wales learnt from the lessons of North Wales and if clubs across the country were continually supported. In Study 5, 84% of clubs expressed a need for greater funding and grant opportunities and 84% of clubs expressed a need for volunteer leader training and qualifications.

In helping to create an environment where new outdoor activity clubs are set up, the Outdoor Partnership has worked with key individuals to help advise on the setting up of clubs with regards to governance and insurance, applying for funding and finding volunteer leaders. One project that clubs have identified as being successful was the volunteer leader training programme. This programme is mutually beneficial to the club and the volunteer leader. It provides free, or highly subsidised, training and assessment opportunities for leaders in NGB courses in return for a set number of hours or days of volunteer leading. Whilst safeguarding future provision in clubs, it also supports local people through a qualification process which in turn could lead to a career in the outdoors for that individual, further stimulating a positive cultural feedback loop in local provision.

Grassroots participation. A fourth goal would be the need to increase grassroots participation. Grassroots participation can be positively improved by the other applied implications discussed above. Additionally, the increase in the proliferation of outdoor activity facilities accessible to local residents of Wales has also helped to engage with new groups of people – these could be further improved under a new scheme rolled out by local authorities for communities to bid for facility funding. As examples, the pontoon in Llyn Padarn in Llanberis is now a focal point of the village, used by swimmers, SUP, kayakers as well as children and families for easy access to the lake. Many new bike trails have been

developed in woodlands across Wales, such as Revolution Bike Park in Llangynog and Antur Stiniog DH in Blaenau Ffestiniog. Surf Snowdonia, as well as being primarily a tourist attraction, provides reliable surf when conditions aren't suitable from the beaches and point breaks of Wales. Facilities can also include toilets and improved footpaths in areas where people could go for a run, walk or bike ride. Improvements in these facilities will make areas more inclusive.

It is also noteworthy the distinction between different facilities. The pontoon in Llanberis is a short walk from the village centre, free to use and accessible to all. The Welsh coastal path is a relatively easy walk, with access from car parks on the coast, many of which have toilets. Climbing walls such as Boulders in Cardiff or the Beacon in Caernarfon have reasonably priced kids clubs. In contrast we have the increase in downhill mountain bike trails, often free, but by their very nature require a high level of riding experience. Or Surf Snowdonia, an excellent facility but considered by many local surfers to be too expensive and of limited appeal to use regularly. For an increased social return on investment, new facilities ought to be free, or low priced to increase participation, provide accessible and inclusive participation opportunities for beginners, be in keeping with the wishes of the local community and natural resources, and have a low maintenance cost.

Whilst social media comes under regular criticism for addiction leading individuals to follow sedentary lifestyles (Alley, 2017), it can also be used as a tool to harness interest in the great outdoors. Whilst brands use social media extensively in marketing campaigns, research suggests that using social networks can be a powerful motivator to encourage more physical activity through the social influence of peers (Zhang, 2015). Integrating activity campaigns into outdoor activity 'hot spots' such as Yr Wyddfa, Rhossili bay, Llyn Tegid and the Gwydyr mountain bike trail could provide motivation to get people participating in outdoor activities.

Social prescribing. Transcending the other four goals is the need to engage with people with health problems and disabilities that limit day to day activity as identified by the lack of provision amongst outdoor activity clubs. In 2019, some areas in Wales are beginning to conduct social or green prescribing interventions. These are activity-based interventions to either supplement, or replace medical treatment – especially in the case of chronic conditions such as diabetes and mental health disorders. These prescriptions can be made by GP's, nurses and social workers. Existing schemes include bird watching, walking, badminton and gardening. Schemes are about social interaction as well as exercise. The author delivered a trial project (see Appendix E1) with the community mental health team on Anglesey, with ten sessions over ten weeks where participants were taken hill and coastal walking as well as rock climbing. The short-term results were tentatively positive, with significant improvements on self-reported general anxiety disorder forms, fewer medical related visits and positive interview and written feedback. Issues that will need to be considered in future are funding for suitably trained applied practitioners, picking up participants who may lack transport/motivation to make their own way to the activity and legacy issues which may arise if projects are discontinued.

Strengths of the research

As a collection of five studies, this research has some significant strengths. The studies present a pattern of provision within Wales, from employment of native Welsh instructional staff to native Welsh people holding higher qualifications and from provision within secondary comprehensive schools to local authority OEC provision in Wales. The fifth study dovetails into the others by discussing clubs and grassroots participation. Whilst in and on their own, the studies provide some evidence for trends within the outdoor sector in Wales, together they corroborate and substantiate the findings of each other where

similarities in results on provision are evident, such as infrequent provision within schools and a low number of qualified native Welsh outdoor instructors.

The first study concerning outdoor activity providers has several strengths. First, it used questions from a North West Wales survey used in 2003 and 2013 as a template so that some of the questions are the same and can be used to measure change over time in the North West Wales sub-group. The respondents from the 2003 and 2013 survey that still existed in 2018 and still fit the criteria were contacted with the survey, in order to maintain continuity when measuring change across time. All surveys were sent out bilingually through email via a google forms survey, paper or Microsoft Word copies of this survey were also available on request.

Study 2 concerned higher-level qualifications. With the support of the British Mountain Guides Association and Mountain Training, a survey was disseminated amongst members. We received a high response rate and working with the board, a comprehensive picture of place of residence, place of birth and Welsh speaking ability was put together. This would not have been possible without the help and support of the BMG board and it was also a benefit that the association was small enough to build up a comprehensive dataset. Mountain Training Cymru also provided support in the second study, providing place of residence of members and going through the list of MIC's that are native Welsh. Dealing directly with the two main associations provided a huge strength to this research with no third-party involvement.

The third study examined outdoor activity provision within secondary comprehensive schools in Wales. We believe that we successfully contacted 173 of 210 secondary comps in Wales. From this 173 we had a 13% response rate of 23. We are aware that many secondary comps in Wales, perhaps over 50%, do not deliver outdoor activities to students and therefore

the response rate could be considered to be reasonable. We received a similar number of responses from North and South Wales, although one might expect to receive more responses from the south where the population density is significantly higher. All surveys were sent out bilingually using google forms and a paper of Microsoft Word copy was available on request.

The fourth study was a challenge concerning study strengths because there was no available record of local authority provision in Wales kept. To begin with, we used the Adventurous Activities Licensing Authority (AALA) website, to identify current OEC's in Wales that were linked to local authorities in England and Wales. We were then able to use OEC or local authority websites to identify size of centres. Our next step was to use a purposive sampling method. We used the Associated Heads of Outdoor Education Centre (AHOEC), an association of leaders in outdoor learning, as our expert sample. Members of AHOEC were then contacted who had been heads of outdoor centres across Wales and were able to fill the gaps in between 1978 and 2018 of centres that had closed down, why and their size – this was then corroborated with other members and news reports. Whilst this system was open to weaknesses in reliability, it was still felt to provide the most accurate information when gathering data relating to closed OEC's.

The final and fifth study was also sent out bilingually using google forms and a paper or Microsoft Word copy was available on request. We contacted 79 outdoor activity clubs and received 38 responses which gave us a 48% response rate. Questions included in the survey were put together by The Outdoor Partnership who specialise in supporting outdoor activity clubs and cut straight to the facts and figures felt to be most relevant.

Weaknesses of the research

Despite rigorous efforts to use best practise methodology, there are several noteworthy weaknesses which need to be highlighted. In the first study, as we alluded to in

the strengths of research section, we used research questions relating to local engagement as used in the 2003 and 2013 surveys. Unfortunately, the results from these questions were considered to be too unreliable to use, as we would have discovered had we analysed the previous studies more carefully.

One of the major shortcomings of not only this study, but also Study 5, is the much higher response rate from North Wales based clubs and outdoor activity providers to South Wales ones. Only seven of the 32 providers and seven from 38 clubs were from South Wales. Whilst this result is likely a reflection of the greater concentration of clubs and providers in the north of the country, it is also a consequence of the Outdoor Partnership, who disseminated the surveys, being based in the north of Wales. Indeed, the Outdoor Partnership has established relationships with many providers and clubs from North Wales who responded to the survey, but they do not have the same relationship with clubs in South Wales. This low response rate from the south means that the potential for less reliable data from South Wales is possible.

In Study 2, we were unable to survey the entire database of MIC's and therefore our dataset is incomplete and heavily reliant on the expert sampling we made within Mountain Training Cymru. Whilst there was no better organisation to be in communication with to interrogate data held, it lacked the more rigorous survey approach that was made with the British Mountain Guides Association.

The examination of outdoor activity provision amongst secondary comprehensive schools in Wales (Study 3), was troubled with a lack of control. Whilst taking a random sample from the 210 secondary schools would have been more appropriate, we would have struggled to receive enough responses using such an approach, without the support from the Welsh cabinet secretary for education, whose office responded to us stating that whilst they

were interested in the research findings, they could not officially support the research project. Because of this, our sample may be heavily biased and we have no way of comparing it with a control sample.

The fourth study investigating changes in local authority run OEC's between 1978 and 2018 was a victim of a lack of previous record keeping in the research area. As no one system recorded OEC closures between 1978 and 2018, purposive sampling was used. This investigative research method was reliant on oral accounts of centre closures which could then be checked and verified. Whilst all OEC's recorded in the study were verified, it is possible that an OEC that isn't recorded closed down at some point between 1978 and 2018, although this would be unlikely given the sample that was used.

In the final study, the main weaknesses were the low response rate from certain types of activity clubs where, overall, we only received one to three responses from activity clubs such as snow-sports and surfing. This means that data averages from these club types are likely to be unreliable, due to the small number of clubs responding.

Suggestions for future research directions

The findings from these studies provide replicable data for monitoring and evaluation. This thesis has examined provision of outdoor activities in Wales in 2018 and provides a comprehensive baseline at an outdoor activity provider level, a secondary comprehensive level and an outdoor activity clubs level. Using the same questions as we have included in the surveys found in the Appendices, and drawing from the strengths and weaknesses of our research, future research could measure change over time across all the areas of provision. Any monitoring and evaluation work could also be expanded to include primary and private schools as well as higher education. Expanding the types and nature of education surveyed would help to improve understanding in relation to differences in institutions and identify key

ages in uptake and drop-off in participation. Widening the scope of the schools survey to all Welsh schools would also give us valuable information on the number of schools currently engaged with outdoor activity provision.

Further to monitoring and evaluation, it would be of value to glean a deeper understanding of who participates in outdoor activities. Whilst we can currently make various assumptions on who participates more and less frequently in outdoor activities from this thesis, qualitative research examining how participation is affected by socio-economic status, ages, disabilities and gender, would be of huge value. For example, the findings from Study 1 and Study 5 suggest that the gender gap in participation may be lower than in many mainstream sporting activities. If such an effect is robust, understanding the reasons underlying it, and how other sports can learn from the outdoors would be extremely worthwhile. In Study 3, a relationship appears to exist between schools with a higher free school meal percentage and less frequent provision of outdoor activities; what is the underlying reason for this? Study 1 found that there were fewer locally recruited employees working as outdoor instructors for outdoor activity providers; what were the influencing factors that drew these people into working in the outdoors and can this be replicated? These questions are all worthy of further scrutiny.

Conclusions

To conclude, this thesis has examined the current state of outdoor activity provision in Wales. It has identified a historic lack of uptake in outdoor activities amongst Welsh people, a decline in state funded provision for schools, but also an expansion in paid for provision and a significant increase in the number of outdoor activity clubs. Whilst this baseline study suggests many areas for improvement, it also implies that some of the mechanisms for increasing outdoor activity participation are already in place. The findings from this thesis

open a number of opportunities for exciting applied work to help make outdoor activity provision more inclusive and accessible in Wales.

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APPENDICES

APPENDIX A

Appendix A1

Google Forms Survey for Study 1

Section 1 of 10

Outdoor activities questionnaire for outdoor activity providers in Wales

Organisation name

Are you a profit or non-profit organisation?

PROFIT

NON-PROFIT

Do you receive any additional financial support from: (Please tick the boxes that are relevant to your business)

No additional financial support

Sport Wales

Sport England

National Governing Body

Community Funding

Charity Funding

Lottery Funding

Local authorities (please state which local authority below)

Other (please state details below)

If you selected local authority, please state which one:

If you selected 'other', please state where additional financial support comes from

What activities do you cater for?

Qualification courses

Skills and coaching courses

Primary Schools

Secondary Schools

Special Schools

Outdoor Activity Clubs

Private/bespoke guiding

Adventure tourism activities (i.e. zip-line, low-high ropes, abseiling)

Other...

Section 2 of 10

Staffing

Please state numbers for each of the following questions

How many staff do you currently employ in your organisation? (Overall Number)

Managerial (MALE)

Managerial (FEMALE)

Permanent instructional staff (MALE)

Permanent instructional staff (FEMALE)

Freelance/seasonal instructional staff (MALE)

Freelance/seasonal instructional staff (FEMALE)

Support staff (e.g. admin, catering, cleaning) (MALE)

Support staff (e.g. admin, catering, cleaning) (FEMALE)

Section 3 of 10

Staffing

Please state the numbers of staff who received their education in Wales overall and for each of the club roles

How many of your staff received their secondary education in Wales? (Overall Number)

Managerial (MALE)

Managerial (FEMALE)

Permanent instructional staff (MALE)

Permanent instructional staff (FEMALE)

Freelance/seasonal instructional staff (MALE)

Freelance/seasonal instructional staff (FEMALE)

Support staff (e.g. admin, catering, cleaning) (MALE)

Support staff (e.g. admin, catering, cleaning) (FEMALE)

Section 4 of 10

Welsh Provision

How many of your instructional staff are Welsh speakers or learners?

How many of your support staff (admin, cleaning, housekeeping etc) are Welsh speakers or learners?

Do you have any trouble finding Welsh speaking instructional staff with relevant qualifications?

Yes

No

Would you like to employ more Welsh speaking staff?

Yes

No

Please state what difficulties you have in employing Welsh speaking staff

Would your organisation benefit from additional skills or training (e.g. IT skills, learning/improving Welsh)?

Yes

No

Section 5 of 10

Provision for local people

1. In terms of your operating remit:

Yes No

Do you currently provide outdoor activities for local people (within county)?

Are you able to provide for young people (under 18 years old)?

Are you able to provide for young people in your local area (within county)?

Are you able to provide for adults?

Are you able to provide for adults in your local area (within county)?

Do you currently provide outdoor activities for local people?

Yes

No

Section 6 of 10

Please specify the number of local schools/youth groups/clubs that you currently work with

Please add numbers in the applicable areas below

Local schools

Local youth groups

Local clubs

For each activity you provide, please complete the following table to show the frequency of provision

	Daily	Weekly	Monthly	Annually	Activity not provided
--	--------------	---------------	----------------	-----------------	------------------------------

Climbing/Bouldering

Paddle-sports

Hillwalking

Mountain Biking

Sailing

Gorge scrambling

Orienteering

Coasteering

Low/high ropes

Zip-line

Environmental Activities

Other (please specify)

If other, please specify

Section 7 of 10

In this section, we will need your approximate number of local young person days provided for each year in each activity.

Climbing/Bouldering

Paddle-sports

Hillwalking

Mountain Biking

Sailing

Gorge scrambling

Orienteering

Coasteering

Low/high ropes

Zip-line

Environmental Activities

Other (please specify)

After section 7

Section 8 of 10

Would you like to make additional provision for local people?

Yes

No

If YES, what additional activities would you like to provide?

If NO, please specify why not?

What do you feel are the barriers currently preventing the above from happening?

Lack of funding

Local groups unable to afford activities/instruction

Lack of local contacts/community links

Cost of an AALA license to work with young people

Lack of available transport

Lack of demand from individuals

Lack of demand from school/local groups

Difficulties running adult and youth courses side by side

Lack of instructional staff

Other...

Section 9 of 10

Volunteering/Community engagement

How many volunteers currently support your organisation?

In what capacity/role?

Do any of your staff currently volunteer in a community club?

Yes

No

If YES, how many?

Would any of your staff like to volunteer in a community club?

Yes

No

If YES, how many?

Do you have any community outdoor clubs based at your centre?

Yes

No

Section 10 of 10

General

In the last TEN years, have you seen an increase, decrease or no change, in the following:

Increase Decrease No change

Local school usage

Community engagement

Volunteering

Employment of staff that received their secondary education in Wales

Employment of Welsh speaking instructional & managerial staff

Any other comments you would like to make:

Appendix A2

Table 1.1

Changes in staff profiles in the North-West wales sub-group.

Staff Profile	2003		2013		2018	
	Total	%	Total	%	Total	%
Managerial	62	8%	75	10%	86	9%
Permanent	170	21%	145	19%	169	18%
Instructional						
Freelance	321	40%	335	44%	404	44%
Instructional						
Support Staff	258	32%	201	27%	266	29%
Total	811		756		925	

Table 1.2

Gender divide of outdoor work force 2018.

Staff Profile	2018	
	Male	Female
Managerial	67%	33%
Permanent Instructional	69%	31%
Freelance Instructional	70%	30%
Support Staff	36%	64%
Total	60%	40%

Table 1.3

Changes in gender of outdoor work force in the North-West Wales sub-group between 2013 and 2018.

Staff Profile	2013		2018		Difference
	Male	Female	Male	Female	
Managerial	71%	29%	66%	34%	-5%
Permanent Instructional	76%	24%	67%	33%	-9%
Freelance Instructional	69%	31%	71%	29%	2%
Support Staff	37%	63%	38%	62%	1%
Total	63%	37%	57%	43%	-6%

Table 1.4

Percentage of locally recruited staff across Wales in different roles.

Staff profile	Total	Primary/ Secondary Education	%
Managerial	101	45	45%
Permanent instructional staff	185	60	32%
Part time/seasonal instructional staff	440	100	23%
Support staff	283	142	50%
Total	1009	347	34%

A Chi-square test of independence was calculated comparing the number of locally recruited employees across all job roles in North-West Wales between 2013 and 2018. No significant interaction was found (.9872 (1) = .320419, $p < 0.5$)

Table 1.5

Changes in numbers of locally recruited employees in North-West Wales sub-group.

	2003		2013		2018		
Staff profile	Second ary Educati on	%	Secondary Education	%	Primary/ Secondary Education	%	Difference
Managerial	16	26%	16	21%	37	43%	2003-18 = 17%

							2013-18 =
							22%
Permanent	12	7%	42	29%	51	30%	2003-18 =
instructional							23%
staff							2013-18 =
							1%
Part time	23	7%	48	14%	85	21%	2003-18 =
instructional							14%
staff							2013-18 =
							7%
Support staff	174	67%	113	56%	139	52%	2003-18 =
							-15%
							2013-18 =
							-4%
Total	225	28%	219	29%	312	32%	2003-18 =
							4%
							2013-18 =
							3%

A Chi-square test of independence was calculated comparing the number of locally recruited employees across all job roles in north and South Wales. No significant interaction was found (3.2804 (1) = .070113, $p < 0.5$)

Table 1.6

Differences in locally recruited instructional staff between North and South Wales outdoor activity providers.

Staff profile	North Wales			South Wales			Difference
	Total	Primary/ Secondary Education	%	Total	Primary/ Secondary Education	%	
Managerial	86	37	43%	15	8	53%	10%
Permanent	169	51	30%	16	9	56%	26%
instructional staff							
Part time	404	85	21%	36	15	42%	20%
instructional staff							
Support staff	266	139	52%	17	3	18%	-34%
Total	925	312	32%	84	35	42%	10%

Table 1.7

Differences in proportions of Welsh speaking employees in North-West Wales.

	2003	2013	2018
Permanent/freelance	8%	20%	19%
instructional staff			
Managerial/support	51%	53%	50%
staff			
Total	25%	32%	27%

Table 1.8

Differences in proportions of Welsh speaking employees between North and South Wales.

	North Wales	South Wales
Permanent/freelance	19%	16%
instructional staff		
Managerial/support staff	50%	0%
Total	27%	9%

A Chi-square test of independence was calculated comparing the number of Welsh speakers amongst north Wales providers and South Wales providers. There was a significant interaction ($13.6658 (1) = .000218, p < 0.5$) with more Welsh speakers working for North Wales providers than South Wales providers.

APPENDIX B

Appendix B1

Outdoor activities questionnaire for secondary schools in Wales

The Outdoor Partnership, a registered charity, changes lives' through outdoor activities. We have inspired thousands of local people to become involved in outdoor activities through participation, education, volunteering, and employment programmes, improving health, social and economic well-being.

Purpose: This outdoor activity questionnaire is intended to give the Outdoor Partnership a better understanding of what existing provision there is for outdoor activities amongst secondary schools in Wales. From this, the research team will be able to provide recommendations of how gaps and specific needs that secondary schools have, can be met and what support can be offered by the Outdoor Partnership.

Name of school:

Address:

Name(s) of person completing questionnaire & position:

Contact e-mail:

1. Do you organise outdoor activity experiences for the children of your school? (e.g. canoeing, sailing, mountain walking, climbing/bouldering, orienteering etc.) *If No, please continue to question 5*

Yes

No

2. When do outdoor activities take place?

During curriculum time

During extra curriculum time

During residential visits

3. How often can pupils participate in outdoor activities provided by the school?

Please tick the relevant boxes in the table below

	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12 & 13
Once a week						
Once a month						
Once a year						
Never						

4. Who provides the outdoor activities in your establishment and what percentage of the whole time, which is dedicated to outdoor activities, do they provide?

Please tick the relevant boxes in the table below

Who provides the outdoor activities?	0 – 20% of activities	21-40% of activities	41 – 60% of activities	61 – 80% of activities	81 – 100% of activities
Employees of your establishment					
Voluntary leaders					
Outdoor activity providers in the UK					
Outdoor activity providers overseas					
Other					

If you have ticked the 'other' box, please specify: _____

5a. Does this school have access to a local authority outdoor education centre?

Yes

No

- b. Does the centre offer a residential programme? Yes No
- c. Which year groups attend the outdoor centre: _____
- d. Activities provided by the centre:

6. Provision of the Duke of Edinburgh Award

- a. Does the school offer access to the DofE for pupils? Yes No
- b. If No, would the school like to offer provision of the DofE? Yes No
- c. Is this offered internally, by volunteering of school staff or by employing a private outdoor activities provider? School Staff Outdoor Activity Provider

d. Number of pupils in last academic year to have enrolled on DofE award (including number on free school meals) - **Bronze:** _____ **Silver:** _____ **Gold:** _____

e. Number of pupils in last academic year to have completed DofE award (including number on free school meals) - **Bronze:** _____ **Silver:** _____ **Gold:** _____

f. What year groups have access to DofE? _____

g. For how many years has the school had provision of the DofE award? _____

h. Are the number places available for the DofE limited by the school? **Yes** **No**

i. Does the school cover staffing costs for DofE outside of school hours? **Yes** **No**

7. Members of school staff with outdoor qualifications

a. Do any of the school staff have outdoor qualifications? **Yes** **No**

If yes, please fill in the number of qualified staff in the corresponding boxes below

Summer Mountain Leader and/or Winter Mountain Leader	
Single Pitch Award, Climbing Wall Award and/or Climbing Wall Leader Award	
Mountain and/or trail bike leader award	
Mountain Instructor Award or Mountain Instructor Certificate	
British Canoe Union Level 1 or level 2 coach	
British Canoe Union Level 3 or above	
British Canoe Union 4* leader (or equivalent) any discipline	

Other: _____

b. Does the school provide funding and/or outdoor qualification training opportunities for members of staff? **Yes** **No**

c. Have any members of staff benefited from funding from the Outdoor Partnership to complete an outdoor qualification? *[North Wales Schools only]* **Yes** **No**

e. Would members of staff be interested in getting outdoor qualifications if training costs were covered? **Yes** **No**

8a. Does the school offer a BTEC level 2 or level 3 in Outdoor Education?

Level 2	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

Level 3	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

9. School Trips

a. Does the school run any school trips with outdoor activities (i.e. ski trips) or environmental activities: **Yes** **No**

b. If yes can you provide information on the type of trip, which year groups go and the cost to students/parents:

10. Private outdoor activity providers

- a. Does the school use any private outdoor activity providers? Yes No
- b. Which year groups have access to this? _____
- c. What activities/trips do these providers enable? _____
- d. Do these providers run courses bilingually? Yes No
- e. Do the providers offer residential experiences? Yes No
- f. Are costs covered by the school? Yes No Partly

11. What are the 3 factors that are currently preventing you from providing more outdoor activities for your pupils? Please tick 3 boxes

- Lack of time within curriculum
- Lack of finance to buy in specialist equipment
- Lack of finance to use outdoor activity providers
- Lack of transport to take students to outdoor activities
- Safety concerns over the potential hazards of outdoor activities
- Lack of teachers qualified to run outdoor activities
- Lack of contact with outdoor activity providers
- Other, please specify _____

12. Would you like to be able to offer more outdoor activities to your pupils?

Yes No

13. Do you believe that participating in outdoor activities benefits/would benefit your pupils?

Yes No

If yes, in what ways?

14. Any other comments you would like to make would be appreciated

Thank you for taking the time and effort to complete this questionnaire. Please can you return the questionnaire by e-mail to:

ymchwil@partneriaeth-awyr-agored.co.uk or **research@outdoorpartnership.co.uk**

or by post to:

Outdoor Partnership

Bwthyn Carnedd

Plas y Brenin

Capel Curig

Conwy LL24 0ET

If you have any questions regarding the questionnaire then feel free to contact the above e-mail address or by telephone at: **01690 720106**

Appendix B2

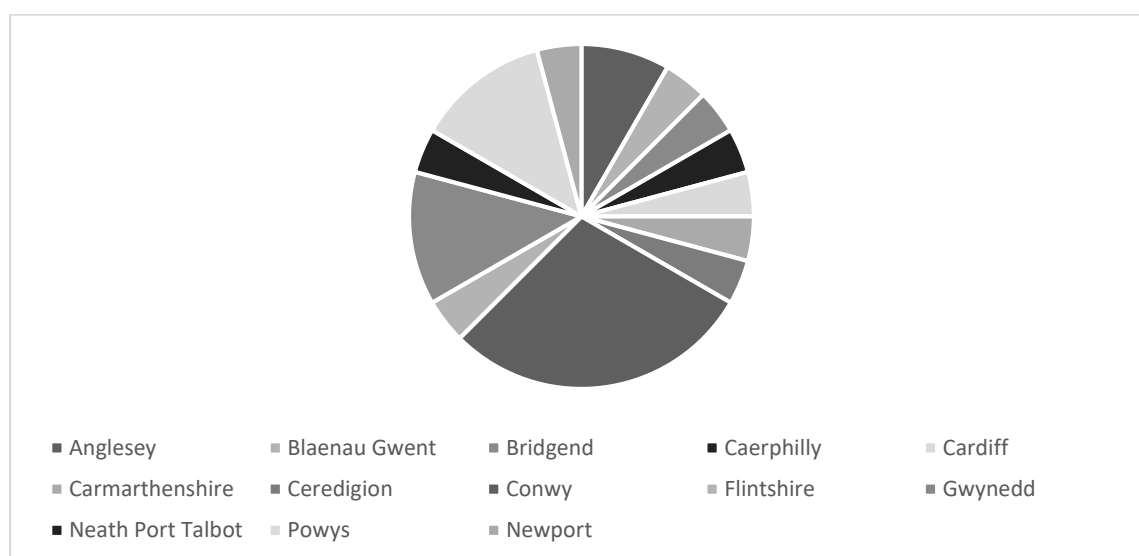


Figure 1.1. Responses of secondary schools by county.

APPENDIX C

Appendix C1

List of open and closed local authority OEC's in Wales 2018

Open OEC's: (Mostly set up between 1965 and 1975)

Blue Peris (Bedfordshire)

Conway Centre (Cheshire West and Chester)

Lledr Hall (Salford)

Nant BH [Primary] (North Wales Outdoor Education Service)

Kent Centre (Kent)

Plas Pencelli (Swinodon)

Woodlands OEC (Oxfordshire)

Pentrellyncymer [Primary] (North Wales Outdoor Education Service)

Plas Gwynant (Sandwell)

Kilvrough Manor (Oxfordshire)

Pendarren House (Haringey Council)

Marle Hall OEC (Warwickshire Council 1971)

Trewern (Barking and Dagenham)

Talybont OEC (Gwent Outdoor Education Service 4 local authorities)

Gilwern OEC (Gwent Outdoor Education Service)

Hilston Park OEC (Gwent Outdoor Education Service)

Arthog (Telford and Wrekin)

Oaklands (Cheshire West and Chester)

Plas Dol y Moch (Coventry Council 1966)

Storey Arms OEC (Cardiff Council)

Closed OEC's with continued provision:

Ogwen Cottage (Birmingham OLS – now OBT) 2014

Arete Centre (Formerly Worcestershire)

Staylitttle Outdoor Centre (Formerly Powys)

Rhos y Gwaliau (formerly Berkshire)

Longtown Outdoor Learning Centre (Formerly Northamptonshire)

Closed OEC's with no further provision:

Ty Gwyn (Powys & Gwynedd)

Aberglaslyn Hall (Leicestershire) 2013

Cwm Pennant Mountain Centre (Hillingdon, London) 2007

Tyn y Berth (Wide Horizons)

Bryntysilio (Wide Horizons)

APPENDIX D

Appendix D1

Wales outdoor activity clubs survey

PARTNERIAETH AWYR-AGORED
Profiad • Mwynhau • Llwyddo



Experience • Enjoy • Achieve
OUTDOOR PARTNERSHIP

The Outdoor Partnership, a registered charity, improves people's lives' through outdoor activities.

We are carrying out this survey to investigate whether Wales is using its natural resources to its full potential for the health & well-being of future generations? This survey will: -

- Look at current community-based provision in Wales, club demographics and identify gaps in provision.
- How outdoor activity clubs across Wales contribute towards people's health and wellbeing.
- Look at some of the barriers that may exist affecting club development.

Name of person completing survey	
Role within the club	

Email	
--------------	--

Club Name			
Club Address			
Main County club operates in			
Club Email		Club Telephone	
Club Social media details/URL's (Website, Facebook page, Twitter, Instagram...)			
Website			
Facebook			
Twitter			
Instagram			
Other			

I. Membership Numbers and Details

a) Overall Numbers	
---------------------------	--

b) Does your club cater for	
Juniors	<input type="checkbox"/>
Seniors	<input type="checkbox"/>
Disabled people	<input type="checkbox"/>
Beginners	<input type="checkbox"/>

c) Age and sex. (Please insert the **NUMBER** of members in each box)

Girls under 18		Senior Female	
Boys under 18		Senior Male	

d) Number of disabled people: (Please insert the **NUMBER** of members in each box)

Physical Impairment	Visual Impairment	Learning Difficulty	Deaf/Hard of Hearing	Mental Health

e) Black, Asian and Ethnic Minority numbers

--

f) Estimated percentage of Welsh speakers in membership

0 – 25%	26 – 50%	50– 75%	76-99%	100%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 Funding and Affiliations				
a) How is your club funded? (please state %)				
By the membership fee				
Lottery funding				
National governing body funding				
Sport Wales funding				
Local authority sports development department				
Community funding				
Charitable funding				
Income generation				
b) What is your membership fee				
c) Is there a discount for				
U18s	<input type="checkbox"/>			
Students	<input type="checkbox"/>			
Pensioners	<input type="checkbox"/>			
Unemployed	<input type="checkbox"/>			
d) Is your club affiliated to a governing body	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If Yes, please state which NGB				
If No, please state reason				

3. Club leaders and/or coaches:				
How many active coaches and leaders do you have in your club	Male		Female	
How many of these are qualified?	Male		Female	
Does the club employ any leaders or coaches?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Does your club want any more voluntary leaders	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

4. Funding and Affiliation				
Has the number of members in the club changed over the last five years?				
No change	<input type="checkbox"/>			
Increased	<input type="checkbox"/>			
Decreased	<input type="checkbox"/>			
Does the club have room to take in more members?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

If the number of members in your club has not changed or decreased what are the main reasons limiting further growth?	
The club doesn't want to grow	<input type="checkbox"/>
Not enough volunteer leaders/coaches	<input type="checkbox"/>
Retention of members	<input type="checkbox"/>
Recruiting new members	<input type="checkbox"/>
Lack of young members	<input type="checkbox"/>
Facility limitations	<input type="checkbox"/>
Equipment limitations	<input type="checkbox"/>
Cost of membership	<input type="checkbox"/>
Transport limitations	<input type="checkbox"/>
Cost of training coaches and leaders	<input type="checkbox"/>
Other (Please State)	<input type="checkbox"/>
Does the club have an operating base?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Does the club have equipment storage facilities?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Does the club provide equipment for members?	Yes <input type="checkbox"/> No <input type="checkbox"/>

If you are a North Wales based club, please answer question 5, 6 7 and 8. If you are a South Wales based club, please proceed to question 8

5. Do you think outdoor activities opportunities/provision has improved for residents in North Wales over the last 10 years?			
Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If 'yes', what do you think the reason for this is?			
More community provision	<input type="checkbox"/>		
Better facilities and infrastructure (e.g. climbing walls, pontoons)	<input type="checkbox"/>		
Improved outdoor activity provision within Schools	<input type="checkbox"/>		
Other (Please state)	<input type="checkbox"/>		
If no, what could be done to improve provision for North Wales residents?			

--

6. Has your club received support from the Outdoor Partnership over the last 10 years?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If 'yes', what support?				
Advice from Development Officers		<input type="checkbox"/>		
Training and qualifications for volunteers		<input type="checkbox"/>		
Volunteer recruitment		<input type="checkbox"/>		
Grant support		<input type="checkbox"/>		
Forums and networking opportunities		<input type="checkbox"/>		
Support to become more inclusive (e.g. Insport)		<input type="checkbox"/>		
Other		<input type="checkbox"/>		
If other, please state				

7. Does your club currently have access to support for				
Volunteer Support	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Inclusive Provision	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Subsidised training and qualifications	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

8. Do you think outdoor activities opportunities/provision has improved for residents in North Wales over the last 10 years?			
Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

If yes, what type of additional support is needed? E.g. funding, health and safety, volunteer training)

--

Thank you for taking the time and effort to complete this questionnaire. Please can you return the questionnaire by e-mail to:
ymchwil@partneriaeth-awyr-agored.co.uk or **research@outdoorpartnership.co.uk**

or by post to:

**Outdoor Partnership
Bwthyn Carnedd
Plas y Brenin
Capel Curig
Conwy LL24 0ET**

If you have any questions regarding the questionnaire then feel free to contact the above e-mail address or by telephone at: **01690 720106**

APPENDIX E

Appendix E1

Anglesey Community Mental Health Team Outdoor Activity Intervention Programme Pilot Study

Introduction

The Isle of Anglesey County Council works with the Betsi Cadwaladr University Health Board in a co-located Community Mental Health Team (CMHT) based at Ysbyty Cefni in Llangefni. This offers specialist help for mental and emotional health problems to people and their families. Help offered can range from individual counselling to group activity through healthcare professionals ranging from Clinical Psychologists to Social Workers. The CMHT have coordinated different activity programmes to support people with mental health disorders from ‘couch to 5km’ to badminton sessions; these initiatives are supported by a wide range of evidence that exercise can help manage symptoms of anxiety and depression, while also helping to prevent physical health problems.

The most recent activity programme that has been set up is an outdoor activity group in collaboration with the Outdoor Partnership, a charity that improves opportunities for people in Wales to achieve their potential through outdoor activities. The programme had an initial 8 week/8 sessions timetable which was later extended to 10 sessions. Participants would be picked up by support workers and driven to a new location each week for an outdoor activity session led by a qualified outdoor professional. This started from coastal

walks and progressed to an ascent of Snowdon, Wales' highest mountain. On days with a poor weather forecast, sessions were run indoors. Typical activity lengths were in the range of 3-4 hours and specialist equipment was available where necessary. Of the eleven participants that attended the sessions, nine were on long term mental health pathways and two were on short term pathways. Only one of the eleven participants was in employment. Five participants were regular attendees coming to an average of 9 of the 10 sessions.

At the end of the programme, participants could sign up to the following eight-week programme beginning in January 2019. Additionally, participants were encouraged to register with the local climbing wall so that they could participate with friends/amongst the group and all participants have been signed up to do a Mountain Training skills certificate in hill walking or rock climbing. As part of a sustainability model the Outdoor Partnership are looking at building up in house resilience by training up support workers to run activity sessions rather than employing additional outdoor activity providers at an extra cost.

With Anglesey due to begin a programme of social prescribing in April 2019, this pilot study may provide some evidence into the impact of outdoor activity interventions when used to improve health and well-being.

Method

Research methodology was not rigorous in this pilot study and the findings are included as a basic measure of the outcomes of the programme as well as recommendations for future programmes and research into the impact of an outdoor activity intervention for people with mental health disorders.

Participants completed GAD 7 questionnaires at the beginning and end of the programme. Of the eleven participants who attended one or all the sessions, we only have a GAD 7 exit form for the five who turned up for the final session to measure change. This

questionnaire gives a general idea of changes in self-reported anxiety levels in the previous two weeks. There was no control group, or other, to compare results with over this period and therefore the results have a low level of reliability and may reflect other changes in the participants lives. Participants were also interviewed and completed feedback forms during the programme and at the end of the programme. The programme began on the 16/10/18 and ended on the 11/12/18. There were 10 sessions.

Results

Demographics

Participants were aged between 25 and 50. All had tendencies towards depression and anxiety with additional mental health issues such as PTSD, bipolar, Asperger's and schizophrenia. 10 of the 11 participants were unemployed and 9 of the 11 participants were in long term support pathways. Of the 5 participants who attended the final session, the overall attendance rate was 92%.

Amongst the 11 participants, the attendance rate was 57%. Of the six additional participants, one was retired immediately due to ill-health, three began the programme beyond the mid-way point or towards the end of the sessions, one moved house half-way through the programme and the other stopped attending after five sessions.

General Anxiety Disorder Forms (GAD 7)

Of the five participants who completed a start and exit GAD questionnaire we can measure a mean decrease of 4.4 per participant. Three participants moved from severe to moderate levels of self-reported anxiety and one from mild to normal levels. For participant D there was little change in anxiety levels.

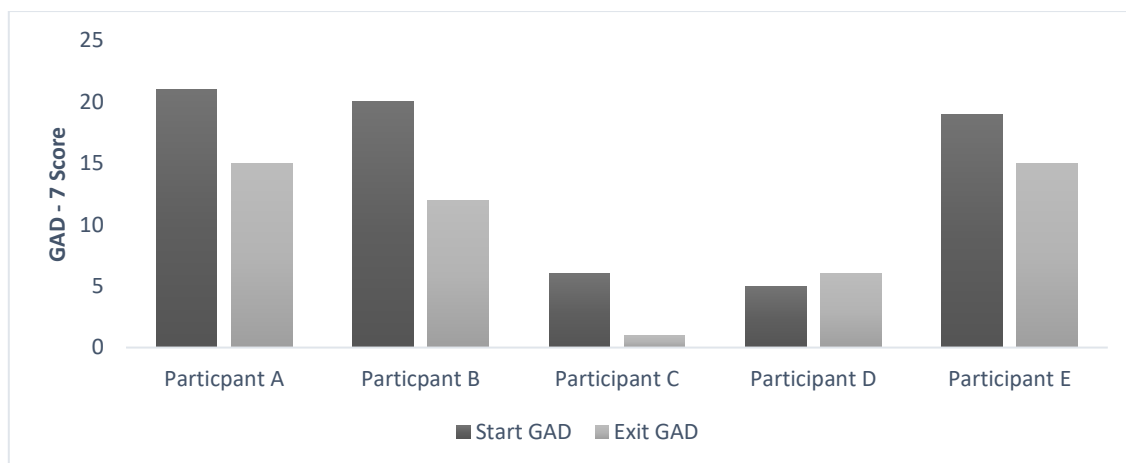


Figure 1.1. Start and exit GAD 7 results for participants A to E.

Self-reported outcomes

Participant A reported a significant improvement in confidence and self-worth from the beginning of the programme and advanced into a position where he felt comfortable to apply for a job once again which he would have been unable to do in the first month of the programme. Participant A was successful in this job application. Participant A also goes to the climbing wall twice a week now where he exercises and socialises.

Participant B was reported as having made significant improvements with no admissions to hospital for self-harm during this period, reportedly the longest period for this since beginning support with CMHT. The participant reported that sessions provided “something to look forward to and help motivate me to stay out of hospital.”

Participant E reported “your activity group enables me to leave my house which I can not normally do on my own”. This participant also reported changes in anxiety during activity: “by taking part in the activity group my mind is forced to concentrate on the strenuous nature of the activities. This means my mind is for a short while distracted from the problems and negative thoughts going on my mind, which is a form of relief my mind does

not normally receive from doing other things. This in turn means I am less anxious when doing the strenuous activities than I would normally be.”

Four of the five reported increased confidence as a result of this programme and three out of five improvements in sleep following activities. All five participants would like to continue these sessions in January 2019 and have signed up to Mountain Training skills training courses.

Discussion

The results from this study suggest that four of the five participants have made significant improvements in self-reported anxiety over the programme period. With no control group to compare them with, it is difficult to isolate whether these improvements were made through engagement with the outdoor activity intervention programme, support from the CMHT or other circumstances. The additional self-reported statements and interviews support the outdoor activity intervention programme making a meaningful difference to individual well-being.

The aim of this programme was to improve individual well-being through participation in outdoor activities and the results point tentatively towards the programme having been successful for four of the five regular participants. Further research with a more rigorous methodology will need to be made to support these findings on future outdoor activity interventions. Furthermore, future studies should also compare groups doing indoor and outdoor activity programmes to see if there are any discernible outcome differences between exercising in indoor and outdoor environments for individuals with mental health disorders. The findings of Thompson Coon et al in a systematic review investigating “Does Participating in Physical Activity in Outdoor Natural Environments Have a Greater Effect on Physical and Mental Wellbeing than Physical Activity Indoors?” support the use of outdoor

activities over indoors but the effects may be more pronounced with those already in healthcare pathways.

Future studies should also investigate the longer-term impact of such interventions and whether participants continue to do outdoor activities with support from the CMHT, in clubs or individually.

Appendix

Anglesey has higher levels of deprivation and many commonly recorded health issues than the national average. Of patients that registered with a GP, 81% live in a rural area and 19% of residents live in an urban area. Anglesey has a higher proportion of people than the national average living in Lower Super Output Areas (LSOA) with 2% of the population living in the most deprived 10% of LSOAs in Wales and 55% living in the most deprived 50% LSOAs in Wales. There is also a high level of health inequality on Anglesey exacerbated by 17% of people living in the most deprived fifth of deprivation whilst 10% are in the least deprived fifth of deprivation. Anglesey has the highest proportion of overweight or obese four and five-year olds in the UK at 32.4% (Public Health Wales, 2015). 10% of 5 to 16-year-olds in Anglesey have a mental health disorder and 30% of adults reported having no active days each week. In contrast, residents on Anglesey reported being happier and more satisfied with life and less-anxious than the Wales and UK average (North Wales Public Health Team, 2017).