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Bringing the inside out: Understanding the office worker experience of well-being and productivity when they take their work outside.

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I confirm that the work submitted is my own and that appropriate credit has been given where reference has been made to the work of others.

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Ethical Review

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Abstract

Office work has historically been considered 'indoor work' and research has shown that bringing nature and the outdoors into this indoor environment has potential benefits for workforce well-being (e.g., Sanchez et al., 2018) and productivity gains (Lei et al., 2021). However, little research has considered the reverse: taking indoor work outside. This is a concern because, anecdotally, people and organisations are now starting to use alternative outdoor workspaces in the hope of enhancing autonomy and well-being whilst still encouraging productivity (Case, 2021). We know that outdoor working has been well received as an alternative workspace in Sweden (Petersson Troije et al., 2021) but we have little knowledge of how people experience such outdoor working and how or why they may (or may not) experience well-being and/or productivity. Thus, this PhD contributes by developing a theoretical understanding of the autonomous use of alternative outdoor workspaces in the UK. It also makes a practical contribution by providing organisations with valuable insight into implementing an outside workspace.

Building on Attention Restoration Theory from the environmental psychology literature I undertook an abductive study exploring why taking work outdoors may influence well-being and productivity and more broadly about what this experience meant for people. Through three studies I developed theoretical insights that add to the existing literature of Workplace Design, Management and HR and provide specificity to the existing theoretical framework. The results demonstrate that people can feel well and be productive when working outside, but that well-being is affected by perceived location autonomy and productivity is experienced in varying degrees. I develop theoretical propositions suggesting that the degree to which well-being and productivity can be experienced when working outdoors is moderated by location autonomy and levels of fascination. For practitioners, I recommend clear, transparent communication in conveying the viability of taking work outside.

Keywords: Biophilia, outside working, well-being, Attention Restoration Theory, nature, outside office.

Abbreviations

Attention Restoration Theory (ART)

The University of Leeds (the university)

Stress Reduction Theory (SRT)

Critical Realism (CR)

Interpretative Phenomenological Analysis (IPA)

Research Question (RQ)

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1.Introduction

During 2020/2021 many in the global workforce faced changes to where they worked due to Covid-19 restrictions. This allowed for the flexible use of space within the home and outside in gardens/on private balconies. In the meantime, organisations and the workforce were reminded throughout and after the pandemic that hybrid working (a mix of home and office-based working) was going to be normalised (Dobbins, 2021), along with people accessing third workspaces such as cafes (Brand, 2023). As a result, alternative outdoor workspaces (e.g., gardens and parks) have become an available workspace setting; and one which we now know that people have started choosing (London, 2022). As this is already happening it is important to understand more about people's experience as they take their office work outdoors, particularly in relation to well-being and productivity.

In 2020 the UK Government reported that accessing green space was more prevalent during the times of eased Covid-19 related restrictions, adding that of the respondents 89% reported improved well-being and mental health because of outdoor nature access. Indeed, the UK Gov (2018 p.71) in their 25-year environment plan stated that:

> "Spending time in the natural environment …. improves our mental health and feelings of wellbeing. It can reduce stress, fatigue, anxiety and depression. It can help boost immune systems, encourage physical activity and may reduce the risk of chronic diseases such as asthma... . It can combat loneliness and bind communities together….".

Thus, we understand that being outdoors in nature has the potential to benefit well-being but what about when people take work outside too – do the well-being benefits remain? We currently have very little understanding or knowledge about people taking their office work outdoors as only a limited number of studies have taken place (Mangone et al., 2017; Petersson Troije et al., 2021; Söderlund et al., 2023; Javan Abraham et al., 2023).

We understand more about the human nature connection known as biophilia (Fromm, 1964) further developed as a hypothesis by Wilson (1984). Biophilia is used to describe the human relationship with nature and is often described

as being innate within humans, (Browning et al., 2014; Arvay, 2018). However, the extent of the human and nature relationship can vary, and a lesser connection has been explained through a lack of childhood nature contact (Pritchard et al., 2020) and/or the increased amount of time which people are spending indoors (Vining et al., 2008).

A broad range of nature elements have been incorporated into workplaces so that a (biophilic) connection to nature can be enjoyed indoors. In a review by Browning et al. (2014) they noted that research by numerous scholars concluded that where biophilic (nature or nature depicting) elements are incorporated into the workspace the reduction in feelings of stress relates to a reduction in the heart rate and lowered blood pressure (e.g., Ulrich et al., 1991; van den Berg et al., 2007). A good example of biophilic elements indoors are indoor plants and indoor green walls. More recently Hindley et al. (2023) found that nature elements within hotel office space was beneficial for both restoration and performance. However, we also know that some research has found mixed results in support of nature or biophilic elements (e.g., plants, photographs, wood furniture) for well-being within the workplace (e.g., Bringslimark et al., 2011). This can be indicative of the type of business and the roles people have within the business (e.g., Thatcher et al., 2020) and the differing elements of nature used indoors.

To date, the human connection to nature (biophilia hypothesis: Wilson, 1984) is best represented within the Attention Restoration Theory (ART) of Kaplan and Kaplan (1989). Kaplan et al. (1998) showed that because of the innate connection, being in nature clears the head, gives mental rest, offers gentle interest (which does not have to be further engaged with) and opportunities for reflection. These benefits are deemed to be because of four elements experienced when in contact with nature: fascination; being away; extent; and compatibility (Kaplan, 1995). ART is a popular theoretical choice within the nature and well-being literature (e.g., Aspinall et al., 2013; Evensen et al., 2015; An et al., 2016; Colley et al., 2016; Lee et al., 2018; Wagenfeld et al., 2018) and the management literature (Klotz & Bolino, 2021; Tang et al., 2023).

According to ART, fascination is determined as being either soft or hard: Fascination which is soft (e.g., clouds - which gently hold attention, but which does not require us to engage with) rather than fascination which is hard (e.g., lightening - which may be considered a threat and therefore requires that we engage with) is understood as key for emotion regulation and well-being (Klotz & Bolino 2021). In turn soft fascination aids energy depletion related to fatigued directed attention, which is then restored (Pearson & Craig, 2014).

However, the focus on soft fascination as a key mechanism for the restoration effects of biophilia has been problematic. For example, although Kaplan and Kaplan (1989) distinguish between two types of fascination found in nature (soft and hard), Joye and Dewitte (2018) argue that ART fails to meet its assumptions by not answering what it is about nature that deems whether it is soft or hard; and why soft fascination decrees that less engagement is required for the resultant restoration benefits to be felt. Basu et al. (2019) attempt to answer this by describing hard fascination as activities or environments which require less effortful attention (fascination) but which takes up mental space (known as 'mental bandwith') leaving little room for attending to other things. The main example of hard fascination they included in their study was watching the television which was seen to be effortless but taking up of 'mental bandwith'. They continue that soft fascination equates to nature elements (e.g., clouds) which require no effortful attention (fascination) but that there is more 'mental bandwith' available for reflection (Basu et al., 2019) aiding restoration of fatigued directed attention. Yet working requires directed attention, potentially minimising the effects of soft fascination when people take their work outdoors. For instance, does taking work outside mean that the 'mental bandwith' will be used up when thinking about work and therefore the well-being benefits of being in nature become lessened? Or does the soft fascination reduce some of the necessary directed attention, leading to decreased productivity? Or do soft fascination and directed attention interact with each other in different ways for different people? Unfortunately, existing knowledge provides no indication of answers to these questions.

A second problematic area within the existing theoretical understanding is the construct of "being away". ART suggests that being away from normalised fatiguing activities (e.g., work) and the environment in which this occurs is important for the restoration of directed attention. ART also states that being away mentally can be more beneficial to well-being than being away physically (Kaplan, 1995). Being away is therefore of concern because if people are taking their work outside, they may be physically away from a stressor (e.g., the indoor working environment) and the associated attentional demands (Basu et al., 2019) and immersed in nature experiencing soft fascination but what then happens if the directed attention and work stressors remain? Does this result in a potential conflict of maintained directed attention and restoration? Would this have an effect on the potential well-being gains? Unfortunately, we are again limited in our knowledge of these questions.

In addition, the third key factor of restoration within ART, compatibility, is also of interest when we consider working because as Kaplan (1995) argues, people can feel compatible within an outdoor space based on an expectation that they will experience a fit with what they intend to do in that space. The origin of the expectation is important within my research because of where the expectation originates; it may be that the expectation is based on a different type of experience (e.g., social versus working) of time spent outdoors in nature. Compatibility with a natural environment comprises of two elements – psychological (traditional use) and structural (affordances of the space). This means that there may be some confusion in the use of outdoor space because outdoor space which is normalised as being for the purposes of leisure time (reinforced with affordances such as picnic benches) may oppose outdoor space being a space within which to work (the same picnic benches but for a different purpose). As a result, there may be some competing compatibility beliefs which could affect how people experience both well-being and productivity when taking their work outside.

Thus, the key theory within environmental psychology literature, (ART), cannot determine whether restoration will still occur when people take their work outside. This is because ART does not clearly identify any moderating

variables which may indicate when the restorative effect is most potent, available and missing. For instance, because people will be taking their work outside it is important to consider the type of task they may be doing when they are working outside – does this mean that certain types of tasks are more conducive to the restorative benefits outlined in ART? For instance, we know that the addition of indoor greenery can support creativity within the indoor workspace (e.g., Sanchez et al., 2018) but as yet there is nothing to suggest that creative tasks will be similarly supported outside. In addition, the ability to feel comfortable enough to work outside and do any task may be determined in part by the affordances within the outdoor space. This means that seating, a table, perhaps some shade, and an electrical point may have some bearing on the well-being and productivity experience.

Furthermore, there is currently very little known about the potential for nature outside to be a distraction and which may have an implication on its' restorative effect, where nature indoors has received some attention as a distractive element (e.g., Larsen et al., 1998). ART focuses on the soft fascination factor of nature which allows people to feel restored by way of gentle interest and contemplative thoughts but does not establish when nature may be experienced differently in relation to well-being or productivity. Similarly, taking the weather into consideration when does this have the potential to influence the potential outcomes of taking work outside.

When people are working outside will management or organisational endorsement, or lack of, mean that people will be more or less likely to feel the restorative benefit of being outside in nature? Alternatively, will they feel uncomfortable and unsure about taking their work outside based on any previous experiences and judge that the space is not a normalised formal workspace? What then does this mean in terms of people autonomously accessing and using outside space to work in? Thus, whilst we understand what happens in nature according to ART (e.g., restoration) it seems timely to consider when this is most likely to happen (or not) and the best way to do this is by understanding these potentially moderating variables in more detail.

ART focuses on the restoration benefit of nature only; however, it may be that this focus on restoration only represents a restricted view of any further potential outcomes of nature immersion. For instance, it may be that spending time outside in nature is not solely helpful for restoration but for well-being more generally and productivity. Klotz and Bolino (2021) discussed the potential energy effects of nature immersion which allows people to feel a renewed interest and enthusiasm towards their work. Whilst enlightening as to a further potential outcome of nature immersion they (Klotz & Bolino, 2021) remain focused on the potential energy benefits for use after nature immersion not during which may be problematic as people are meant to be working while they are outside and not taking a break to resume working when they return inside.

In addition, ART describes a process towards restoration which occurs as a result of nature clearing the head, giving mental rest, providing gentle interest and finally giving an opportunity for reflection - yet we know that people are working outside also. Therefore, the current view of the potentialities of nature benefits as a stepped process towards restoration and increased levels of productivity after nature contact (Lee et al., 2018) may be limited. This allows me to consider what else may be happening for people when they are outside such that they may experience feeling well but which also may mean that they are productive. It is through understanding the intricate nuances of how people make sense of and understand their experience within an alternative outdoor space that this study will add to our existing understanding and provide theoretical sophistication.

This PhD thesis will help us to understand how well-being and productivity are experienced together, why, and what this means to people to answer the three research questions of,

RQ1. '*How do office employees use outdoor spaces as workspaces?*'

RQ2. '*How do people who take their office work outside understand their experience of well-being and productivity?*'

RQ3. '*How and why do people experience different degrees of focused productivity when working outside?*'

The chapters which follow will refer back to the aims of the study throughout and comprise: literature review, (to understand our current knowledge); Study one (methods, results, discussion) to answer RQ1 '*How do office employees use outdoor spaces as workspaces?*'; and RQ2 . '*How do people who take their office work outside understand their experience of well-being and productivity?*', Study two (methods, results and interpretations, discussion) to explore RQ2 '*How do people who take their office work outside understand their experience of well-being and productivity?*'; and Study three (methods, results, discussion) to answer RQ1 and RQ2 together with RQ3 '*How and why do people experience well-being and different degrees of focused productivity when working outdoors?*'; overall discussion, (contributions to theory, limitations, recommendations, practical recommendations and further research); and conclusion. I begin with the literature review.

2.Literature Review

For this study I ask how people use alternative outdoor spaces in nature to work in and what this experience is like for them. To understand what is currently known about this phenomenon I will now present what the most relevant literature has revealed. Nature is a broad term which has many components such as wild prairie landscapes, tended landscapes, mountainous landscapes, urban planting, blue nature (water) and green (plants and trees). There are also many definitions of what is included under the term 'nature' and the debate continues regarding the definition of what is included or deemed as being called nature (Ducarme & Couvet, 2020). It may therefore be simpler within this study to clearly define the elements of nature which will most likely be present within the outdoor spaces rather than attempt to pull apart the vagaries of the meaning at this stage. The interest of this study is on outdoor environments which primarily includes wood, trees, plants, grass, sky, weather, (sun)light, air, birds, insects, and small animals.

The remainder of the literature review is set out as follows: nature in the workplace (sub-section 2.1, p.8); creating the outdoor workspace (sub-section 2.2, p.11); and current use of outdoor space in the workplace (sub-

section 2.3, p.19). This coherently sets out the reasons behind the research questions ('*How do office employees use outdoor spaces as workspaces?*', '*How do people who take their office work outside understand their experience of well-being and productivity?*') and *(How and why do people experience well-being and different degrees of focused productivity when working outside?).*

2.1 Nature in the workplace

Thus far ART (Kaplan & Kaplan, 1989) is a worthy theoretical consideration as organisations look to incorporate biophilic elements (biophilia theory) to increase workforce outcomes based on the restorative benefits of nature. Some research has focused on the fascination element of ART in relation to micro-breaks involving nature to explain improved attention (Lee et al., 2015), and performance (Lee et al., 2017) after nature contact. Other research suggests that fascination explains restoration as an aid to combating a fatigued mind leading to job satisfaction (An et al., 2016). A few research studies have focused on the compatibility element of ART such as the built-up indoor environment versus the natural outdoor setting for increased creativity (Mangone et al., 2017) and engagement (Nieuwenhuis et al., 2014) where the potential for the restoration of fatigued directed attention is increased.

However, Lee et al. (2018) found that a view of nature (in particular that of a green roof) or indoor plants, (Grinde & Patil, 2009) used as depictions of nature is not always enough to trigger interest or indeed recovery; and it is the subjective viewpoint (Loder, 2014) of nature in its' most natural state (Nassauer, 1995) which is pivotal to any fascination and interest. Furthermore, we also understand that subjectivity holds the key in relation to the benefits or not of nature in any form (van den Berg et al., 2014). This suggests that the experience of being in nature (Cook, 2020) can elicit subjectivity, association, and personal memories (Cheung & Wells, 2004; Totaforti, 2020).

The implication is that personal memories (including sense memories) of time spent in nature can be associated with good or not so good experiences

and it is this feeling which people may then associate with and form a potential connection to nature. Indeed, it could be that personal memories of time spent in nature creates an expectation of how we are going to experience nature each time after this (Ryan et al., 2010). For instance, where nature sounds have previously been found to help people recover from stress (Alvarrson et al., 2010) this aligns with the compatibility element of ART. This, according to Kaplan (1995) primes people to expect to experience a positive affect response (in this case positive recovery from stress) in future outdoor experiences (e.g., hearing birdsong).

Our understanding of nature in the workplace continues to be dominated by research focused on bringing the outside in (e.g., Klotz and Bolino, 2021) and in doing so fails to understand that people are taking their inside work out. This leaves an opportunity to look at what happens when people go outside to work. Klotz and Bolino (2021) identified a number of ways in which indoor workers have contact with nature during the working day, namely outdoor breaks (e.g., for a drink or smoke break), elements of outdoor nature brought inside (e.g., plants), viewing nature through a barrier (e.g., a window), and representations of nature (e.g., pictures of nature). Most recently, Brossaint et al. (2024) have added to the work of Klotz and Bolino (2021) to report that the accessibility of nature during the working day (which includes transitioning between spaces and time spent outside for contemplation) is beneficial for relaxation (in line with ART) with benefits for engagement and creativity after the nature exposure. Furthermore, Klotz and Bolino (2021) understand that there are four types of potential energy in relation to ART and which are moderated by nature contact; soft fascination in ART being related to cognitive energy by way of restored directed attention; being away being related to emotional potential energy by way of restored directed attention; extent being related to prosocial potential energy by way of how much a person enjoys a connection with nature; and compatibility and physical potential energy by way of the desire to which a person wants to be in nature. Thus, the four restorative elements of ART within nature exposure according to Klotz and Bolino (2021) can be both restorative and potentially energising for people at the workplace.

More generally we also know that exposure to nature at work sees improvements in productivity, creativity and health as found by Sanchez et al. (2018). Tang et al. (2023) conducted 5 studies which included participants from Canada, the U.S., Taiwan, and Indonesia and concluded that people's openness to the experience of direct contact with nature during the working day was positively linked to higher levels of creativity. Furthermore, Tarran et al. (2007) argued the case for the standard practice of plants to be included in workplaces for improved air quality, setting a powerful precedent. However, Bringslimark et al. (2007) argue that although there may be improved productivity together with reduced sick leave when plants are introduced to an indoor workspace the causal results are small. As a reflection of the ongoing conversation elements of nature have predominantly been brought into the workplace (as a recognised feature of biophilic design) for workforce well-being and positive affect (Heerwagen, 2009). These studies have sought to investigate links between nature and the workforce and have succeeded. However, research continues to focus on the relationship to nature within an indoor space leaving an opportunity to increase the understanding of the nature connection outdoors within this study.

Overall, this existing focus on bringing the outside in suggests that the combination of nature and work may be positive but other research has found negative or non-significant effects. Thatcher et al. (2020) found non-significant results for performance and well-being after the inclusion of indoor potted plants into the call centre setting of their research. This may have been explained by the high turnover of staff within the context of the study and no relevance being placed on the intervention. The indoor planting debate continues further for instance, Hähn et al. (2020) found that living plants within an office or break out room do not always serve employees' well-being, but in their quantitative study they did find that job satisfaction increased. Additionally, Adachi et al. (2000) found that indoor plants which flower can have a detrimental effect on mood within the workplace.

A plethora of indoor plants at the workplace have also been found to be a distracting element away from tasks (Larsen et al., 1998). We know that the

human connection to nature (biophilia) is perceived differently within different spaces which according to Gillis and Gatersleben, 2015 can be explained by the activity taking place in the space (e.g., an excess of plants indoors are reported as distracting at the workplace), whereas at home (as long as people are not working) an excess of plants may be experienced as restorative. Even where greenery within an office is helpful for well-being (Cooper & Browning, 2016), and cognitive thinking (Aydogan & Cerone, 2021), Yin et al. (2019) argue that tasks are not always carried out as quickly because the calming effect of nature indoors can detract people away from the focused attentional demands of task attainment. Thus, differences in perception of nature may exist which are dependent upon an internal alignment or interest as to whether the plants are perceived as an aid to task or goal attainment (e.g., Unsworth et al., 2014).

Whilst some work has demonstrated the benefits of bringing nature into the workplace, and more recently into transitional spaces (such as workplace entrances) for mental well-being (Mehta & Mahamood, 2022), a burgeoning area of research is considering the effects of bringing the workplace into nature. In their review paper related to nature enhanced workplace design Sadick and Kamardeen (2020) made the distinction that indoor greenery in the workplace aids job performance whereas outdoor space at work is beneficial to workforce well-being. This suggests that the response to nature is different when it is experienced indoors and out. We also know that some elements of nature are less likely to be experienced indoors (e.g., the feel of direct sunlight on the skin). Thus, we need to look at what happens when people go outside to work as there appears to be some initial support for examining the experience of working in an alternative space outdoors.

2.2 Creating the outdoor workspace.

During the Covid-19 pandemic much of the worldwide workforce faced the working day not from within an office amongst their colleagues but based at home amongst (for some) children and other adults. In this sense the workplace changed and became integrated as part of home life. For some people this meant that they had their first taste of hybrid working (a mix of

home and workplace working) which can be both beneficial and not (Davis et al., 2022). For instance, a workforce forcibly made to work from home may suffer from a lack of social interaction with colleagues although they may find that the flexibility also suits them.

As people returned to the office post Covid-19 the change to the office environment may have proved unsettling (Elsbach, 2003) as they tried to regain a sense of identity with the space and their place within the organisation; where the pandemic had shone a light on how and where people could and did work. How people manage to work within a space is important (Davis et al., 2011) as failure to do this increases workforce stress (Vischer, 2007) as they struggle to carry out their required role in a space not fit for purpose.

Just as the workforce responded to where they were working from and how, organisations also had to respond to extend their knowledge around where and how they wanted their workforce working. Offering alternative places to work whilst at work has been commonplace in some organisations where both individual and group working is facilitated through effective design (Lee & Brand, 2005). Most notably the opportunities for knowledge sharing and knowledge creating are seen to increase in these types of workplaces (Coradi et al., 2015). This flexible and autonomous use of space known as activity-based flexible office space (AF-o or ABW) has developed to include many areas of potential working and collaboration under one roof. And yet, the emphasis remains on this 'one roof' such that this inside space only can house the workforce at work. This also means that the amount of time the workforce spend indoors is maintained and their roles evolve around this being indoors (Candido et al., 2019) but that sedentary time is decreased because of moving around the office to complete certain tasks in certain spaces within a working day (Arundell et al., 2018). However, Mache et al. (2020) warned that it took a year before collaboration within an AF-o/ABW was significant thus indicating that any new initiative may take a while to become embedded. Interestingly though for a great many people an AF-o/ABW became situated within their homes during 2020/21 and people also

became adept at including the outdoors in this, effectively turning their outside space into viable workspace.

Preference of where to work in an AF-o/ABW is important where not all spaces will be used, and some spaces may be more popular than others. For instance, Göçer et al. (2018) found a preference for chairs and desks nearby windows (possibly related to the previously mentioned opportunity to connect with nature) although this was not interrogated. We also know that hierarchy is essentially flattened in these spaces (Wohlers and Hertel, 2017) and that managers consent for the workforce to use their autonomy and control over where to work increases organisational alignment (Knight & Haslam, 2010). However, Marzban et al. (2022) argue that any benefits of an AF-o/ABW can be negated if the space is not used effectively. Thus, preference for where and how some people have more recently chosen to work has been demonstrated by some through their inclusion of outdoor space as a viable workspace - which may or may not have included organisational knowledge.

After the Covid-19 pandemic organisations digested what workspace they had: of interest was how they began to view their workspace as being able to support the needs of the workforce (e.g., well-being, performance: CIPD, 2021). However, the workforce led the way on this and had been able to create their own office environment at home both indoor and out during the lockdowns essentially showing what best fit for them (Pratt, 2020). As such the altered design of the workspace at home was reflecting the needs of the workforce but only because the needs were personally known (Ng et al., 2021). Arnold et al. (2016) acknowledged how the workplace can be the cause of stress if the design does not fit with the roles (and needs) of the workforce. Indeed, Van den Berg et al. (2020) posit that the three elements of levels of noise control, light and privacy must be included to create a workplace which also accommodates that people have different needs at different times (Altomonte et al., 2019).

Essentially the components of any available workspace are best if the space reflects what is needed the most from both the organisational and workforce viewpoints (e.g., Davis et al., 2022). This can be helpful to ensure that roles

are fulfilled and that if people have what they need in the space they will be more committed to an organisation (Stum, 2001) and less likely to leave which is helpful to both the workforce and the organisation. Indeed, Moezzi and Goins (2011) stressed how the workplace is not generally designed for the workforce per se but as somewhere that they can achieve their role only, (discounting any well-being needs) with managers and leaders having a view of the workforce - this being indicative of what people do but not how they do it. They (Moezzi & Goins, 2011) noted how this scenario is very similar to that of Foucault (1977) and his prison design which determined manipulation of peoples' behaviour through authority figures being able to see everyone all the time. Thus, the Covid-19 pandemic brought with it a new determinant of workspace design as an opportunity to consider fitting workspace alternatives for workforce and organisational benefit.

Spivack and Milosevic (2018) coined the term 'perceived location autonomy' (PLA) in their study related to workforce autonomy over where to do their tasks. Their results suggested that both productivity and well-being were positively related to being able to exercise PLA in the workplace. According to Kossek et al. (2023) in their review they reported that work location autonomy has most recently been situated in the telework, virtual work and flexible space domains. Furthermore, Wu et al. (2023) measured task-environment fit and employee mental health finding that location autonomy has a positive effect on employees' perception of task-environment fit but that subsequent mental health benefits are indirect and determined by the level of task-environment fit. However, we also now know that since the Covid-19 pandemic, hybrid and flexible working has increased the number of spaces within which the workforce now use to do their work in. Notably this highlights that the location autonomy literature has thus far neglected to include the outdoors as a viable space for working in. This means that we are lacking knowledge about how people are doing this, why and what this means for them.

Office workers may have some personal knowledge and experience of the benefits of how they work, where the comfort elements of desks and chairs are important for employee health benefits (Kim et al., 2016). This is

synonymous with the affordances of the space as depicted by Gibson (1979). Affordances within a space suggest to us the actions and behaviours which can potentially take place in the space because of what the items in the space afford that we may do there. For instance, if a space is equipped with a table and chairs and a power socket this could suggest to us that we could take a laptop (or other technical device) into the space and do some work there. There is some evidence to suggest that when people work outside, they do not work outside all day (Petersson Troije et al., 2021). As such the affordances within an outdoor space may be subject to a quick individual interpretation (Vilnai-Yavetz & Rafaeli, 2021) before a person responds by taking behavioural action. Innovative use of an outdoor space has been shown in a study in a New Zealand library where the use of photobioreactors as shading were effective against the weather and the sun offering a space for year-round use (Lo Verso et al., 2019). However, as yet there is limited knowledge to support how individuals may (or are) creating a workable space outside.

What is crucial within any workspace is that the organisation have a clear view of the results they are trying to achieve by making that space available (Ashkanasy et al., 2014). This may include an element of the organisation leading the way (Epitropaki et al., 2017) to show the workforce the intended emphasis of the space (Oseland et al., 2012) together with how and why the workforce are intended to interact with the space (Oseland et al., 2011). Aesthetics alone cannot be counted on to convince a workforce to use a space; the preferences of social interaction, functionality, noise control, ambience and a positive emotional response are all deemed as necessary (Babapour Chafi et al., 2020). One addition to this list may be affordances based on the reasoning that behaviours and actions (e.g., work) can take place based on our interpretation of what is in the space. This leads me to consider the lived experience of people within an outdoor space to understand how and why that space may be considered viable.

Interestingly one of the major distractors of productivity within a workplace and which may have an influence on whether the space is a viable workspace is noise. Haynes et al. (2019) found that where office workers

have a fixed work point, they are more likely to be distracted by noise with this then having a negative effect on productivity whereas if the workforce can change spaces, (e.g., AF-o/ABW) they are less likely to be distracted by noise and thus suffer less productivity losses. Mak and Lui (2012) note that even when considering between high and low productivity workers, noise has a negative effect on both cohorts. To mitigate the productivity losses associated with noise Appel-Meulenbroek et al. (2021) found that either an approach coping behaviour (talk to colleagues about the noise problem) or an avoidance coping behaviour (work harder) used in relation to noise still had a negative impact on productivity. This seems to indicate that when the workforce are inside and perhaps has a fixed work point, they are less likely to be able to escape noise which is deemed as distracting. However, noise is not solely encountered indoors. It may be that outdoors there is less opportunity to control the environment and so noise (e.g., traffic, roadworks, people) may become a distraction to working. This suggests that other than removing oneself from the source of noise the potential for noise to be a distraction from work tasks is possible whether people are inside or outside unless the noise is registered as being helpful (e.g., birdsong) for positive affect.

There is some evidence to support that the sound of birdsong is a helpful aid towards restoration as Qi et al. (2022) found in their indoor based experiment. Ferraro et al. (2020) also finding positive restoration for people hiking and hearing birdsong, but as yet there is little known about the effects of birdsong when people are working outdoors. In their lab-based experiment of sixteen participants in a pharmaceutical company in the UK, Lee et al. (2020) found that a lack of any noise was found to be a positive determinant of concentration and performance, whereas the sound of nature (in this instance, running water) was determined as being overstimulating for participants as they attempted a focused cognition test. We know that any outdoor space must match the needs of the workforce (Siba et al., 2020) and accordingly offer them what they need otherwise they will not continue to use the space. This may become an issue if the vagaries of noise encountered outdoors are not explored further.

One of the benefits of taking work outside relates to feelings of positive affect and well-being. Largo-Wight et al. ascertain that the widespread roll out of access to nature within the workplace is beneficial for overall well-being (2011a; 2011b). This does not mean that outdoor space is just for the purposes of relieving stress as Wagenfeld et al. 2018 state but that outdoor space has the potential to be multifunctional. Whilst the research conducted by Wagenfeld et al. was in relation to correctional staff who may encounter high levels of stress the assertion is that being able to access outdoor space throughout their working day aids their ability to withstand the stress and avoid burnout, further asserting that many different activities (e.g., walking, gardening, contemplating) took place outside (2018). Unfortunately, the study did not pull apart the activities undertaken by the survey respondents and so this makes it difficult to assess whether it was going outside to be in nature or the activity which was the aid to feeling less stress. However, autonomy to access outdoor space together with social support has been found to be enough to counter the demands of a working day (Colley et al., 2016) but this does not mean that any outdoor space is sufficient to meet the needs of a workforce. Indeed, Grahn et al., (2005) understand the general characteristics of an outdoor space to meet our needs are serene, wild, species rich, diverse, have a vision of space, communality, pleasure, accessible and imply a sense of culture and history. We know that the amount of green space is pivotal to any positive effect (Jorgensen & Gobster, 2010) which may be troublesome where space is negligible or certainly constrained. In a more recent exploratory pilot study by Söderland et al. (2023) in Sweden, they found that any workable outdoor workspace needs to contain focal points, a sense of space, privacy and make sense aesthetically. However, McMahan and Estes (2015) assert that whether nature is managed or wild the resultant well-being remains the same. Thus, there are currently many claims being made as to what would suit people best if they are to take their work outside, but we have no empirical evidence in the UK to support any of the claims leaving an opportunity to learn more.

In terms of the workforce feeling productive in an outdoor space Mangone et al. (2017) carried out a study whereby photos of various alternative indoor

and outdoor workspaces were shown to the participants within their study, and they were asked to rate each area against specific tasks. They found that the workforce preferred outdoor space within nature particularly dense forest, meadow, and forest amphitheatre; these spaces were felt to allow for flexibility including quiet time, meetings, and lunchbreaks and as such represented different spaces for different tasks (Mangone et al., 2017). Whilst being an enlightening insight into the preferences of this cohort a huge limitation was that the participants were only shown photographs of the working spaces (both indoor and outdoor) and so did not actually experience what it would be like to be immersed and working in those spaces. Indeed, McMahan and Estes (2015) state that more benefits can be obtained by immersion in, rather than depictions of nature (photos) and as such the study by Mangone et al. (2017) may not have succeeded in capturing the nuances of working outdoors particularly where access to a dense forest, meadow or forest amphitheatre may be limited. The conversation regarding the use of photographs and videos for instance in these types of studies whilst giving some indication of what people might think or what they think they might believe about being in that space - the reality may be somewhat different (similar to that of laboratory-based experiments) previously discussed leaving us with a cautionary pause to consider that we are not making conclusions based on a lack of experience of a phenomenon.

Furthermore, Petersson Troije et al. (2021) in their two-year study of the lived experience of users of an outdoor work office in Sweden found that well-being increased through the usage of the outdoor office together with improved cognition and social interaction. Their study sought to understand whether the experience of working outdoors was fulfilling or not using thematic analysis. This wielded five main themes across the data relating to conditions which were imperative to usage of the outdoor space; that the outdoor space was located close to the workplace, that the affordances of the space meant that people could work there, that policies were in place regarding the usage of the space, that managers understood the value that working outside could bring to the workforce and that the culture of the immediate team supported the use of the space also. Whilst based on the

lived experience of the participants, this study was set in one organisation in Sweden, with one available area to work in which limits their findings in relation to the range of spaces used. However, their study does encourage further exploration into this phenomenon from a broader range of participants.

RQ1: *How do office employees use outdoor spaces as workspaces?*

2.3 Current use of outdoor space in the workplace

ART tells us why people feel well when being in nature, but the premise of taking work outside may mean that the well-being benefits might not hold when people are working outside. To recap ART (Kaplan & Kaplan, 1989) suggests that time spent in nature restores fatigued directed attention by way of four elements: being away, fascination, extent, and compatibility such that a renewed energy towards work is enjoyed after the nature contact. To date, ART posits the well-being virtues of access to nature but does not consider the potential effects of being in an alternative outdoor space and working.

Research related to understanding the experience of being outside in nature while working is currently limited - perhaps people do not even notice natural elements, let alone feel their emotional needs being met (i.e., hedonic well-being) if they are focused on a task, or perhaps the experience of needs satisfaction through nature is stronger when contrasted with a negative work experience. A glimmer of light has been shone on this by Petersson Troije et al. (2021) who found that both well-being and enhanced cognition were reported by participants in their study; yet the findings lack the further knowledge of why and how participants experience an outdoor workspace as they do and importantly how productive they feel they are when working outside. Where the intention to go outside is during the working day it is a valid consideration to think about how productive people are and what tasks they are working on otherwise organisations would (understandably) question the viability of this behaviour. Unfortunately, although the literature to date is suggestive, it is impossible to hypothesise either way.

Most of the literature looking at how outdoor workspaces can be used are limited in their effects on employees. Workplace gardens are currently the

closest comparable space. Indeed, workplace gardens can support the sustainability aspect of organisations through community involvement (Anderko et al., 2012), be influential in how individuals perceive the organisation (Lottrup et al., 2013) and be representative of fulfilling the basic needs of a workforce (Parsaee et al., 2019) at a relatively small cost to the organisation (Lumber et al., 2018; Xue et al., 2019). In certain workplaces (notably hospitals) gardens are understood to be helpful in that they allow the workforce to get outside and relieve the pressures of work (Ulrich, 2002; Cordoza et al., 2018) but they do not include that workplace gardens may be used for working in. Whilst many office workers perhaps experience anxiety and stress differently to how hospital workers do due to the stressors each cohort are exposed to this does not deny that people who work in offices are faced with job demands and social environment pressures (Bolliger et al., 2022) with potential negative affect. However, the potential benefit of accessibility to outdoor space and nature for many in the workforce remains as well-being noted as important to sustain a healthy and productive workforce (Korançe, 2021). Furthermore, Souter-Brown et al. (2021) found that in a workplace sensory garden there were well-being benefits even for those participants who already perceived themselves as well. Of note, King and Lee (2022) posit how workplace gardens can have reminders of being at work and so may not be as restorative as once thought. This is because the key element of being away as suggested by Kaplan & Kaplan (1989) which is needed for restoration is not available.

Thus, historical use of outdoor space at work has been through the taking of breaks not for doing work. The use of outdoor space to provide areas for eating and taking breaks is seen as a positive way to increase employee well-being through direct contact with nature (Largo-Wight et al., 2011b). There is an understanding that micro-breaks in particular are generally an effective use of self-regulation particularly in relation to managing well-being (Petrou et al., 2012; Schmitt et al., 2012; Breevart et al., 2014; Zacher et al., 2014; Skatova et al., 2016; Sonnentag et al., 2022; Albulescu et al, 2022), energy levels (Fritz et al., 2011), reduced pain - relating to job tasks (Park et al., 2017), and performance (Lee et al., 2018), such that this can leave the

workforce feeling satiated from the effects of taking a microbreak (Skatova et al., 2016). We know that flexible work breaks during the day can be enjoyed by accessing nature regularly if the nature is nearby the workplace (Taib & Abdullah, 2012) and this only needs to be for a relatively short space of time (Grinde & Patil, 2009; Barton & Pretty, 2010). Green micro-breaks offer positive benefits such as increased job performance and decreased mental tension, (Lee et al., 2018) from views of nature and a reduction in stress levels, (Largo-Wight et al., 2017) when taking a break outdoors. These findings are impressive and lead me to the question of what might happen if access to outdoor space was not micro time-limited and was instead an alternative space in which to work.

According to Stevenson et al. (2018) use of an outdoor space to work in and actual exposure to nature is far more beneficial for well-being to the workforce than depictions of nature where it could be that the loss of nature within a space stunts humans' activity (Neuteleers & Deliège, 2019). Benefits of being outside amongst nature sees increased well-being (Stigsdotter & Grahn, 2004; Chance et al., 2015) and decreased burnout (Cordoza et al., 2018) over and above that which is experienced indoors (Perrins et al., 2021) where nature elements have been incorporated.

Some studies have shown that use of the outdoors in nature offers an opportunity for recovery particularly from stress in everyday life (Beil & Hanes, 2013; Berto, 2014) and outdoors at work (Maric et al., 2021; King & Lee, 2022) where nature immersion to induce calm also affects the gut biome (Robinson & Breed, 2020) related to physical health. Furthermore, a reduction in stress has a positive effect on emotions such as anger (Zhan et al., 2017) and psychological well-being (Ulrich et al., 1991; Howell et al., 2011) which persists over time (Hartig et al., 2003). Stress can have a detrimental effect on well-being. This is because we may have physiological, behavioural, impacted thinking and emotional responses to stress all of which can impact how we feel and therefore our well-being. One theory related to stress reduction due to nature contact is Stress Reduction Theory (SRT: Ulrich et al., 1991). I did not use this theory as a focus within this research as I chose to not measure physiological stress levels (e.g., blood

pressure). As well as being a useful antidote to stress Brown et al. (2013) found that views of nature could be useful as a precursor to a stressful event. Furthermore, Klotz et al. (2022) found that after work contact with nature can carry over to the next morning increasing positive well-being and work effort at the beginning of the next workday, however, they cautioned that this was dependent on individual nature connectedness feelings. Thus, the use of nature outdoors as being of potential benefit before, during and after a stressful event is helpful when considered across a workforce for positive well-being.

As a result of the Covid-19 pandemic there has been an increased interest in well-being at work (Suff, 2021). Not surprisingly, for many, after many months of being encouraged to work from home stepping out of the front door to re-enter the workplace was fraught with anxiety (Espiner, 2020). The implication of not offering alternative workspace to support the workforce can be expensive in that mental health issues has been reported as costing UK businesses in the region of £42 - £45 billion per year (Public Health England, 2020). More recently, McDaid and Park (2022) suggest that mental health costs for businesses across the UK in 2022 stood at £117.9 billion per annum with productivity losses standing at £30.7 million for businesses.

Thus, this overall study is well placed and timely in understanding what the experience is of being able to take office work outdoors as we catch up with what people are already choosing to do within flexible and hybrid working practices since the Covid-19 pandemic. Therefore, I will investigate the lived experience of working in an outdoor workspace with particular attention on well-being and productivity.

RQ2: '*How do people who take their office work outside understand their experience of well-being and productivity?'.*

RQ3: *'How and why do people experience well-being and different degrees of focused productivity when working outside?*

3. Study one

This chapter sets out to answer RQ1 '*How do office employees use outdoor spaces as workspaces?'*. However, before I continue, I am going to provide an overview and introduction as to why, within this thesis there are three studies which are methodologically different. To begin the studies are importantly linked in that they allow me to explore different aspects of the experience of the phenomenon (broad in Study one, in depth in Study two, and deep understanding of identified groups in Study three). This creates the potential for increased knowledge of the phenomenon which builds on the previous study/studies as the research progresses to tell the overall story. In addition, I use a bricolage of methods within each study as an "appropriate strategy to achieve the goal" (Ben-Asher, 2022, p.6). This is a less rigid approach of conducting qualitative research (Berry, 2004) which aids transparency and helps to overcome the potential limitations of each methodology used (Mateus & Sarkar, 2024) and which I describe below.

Study one (p.23) is designed to be exploratory and broad to gain an initial understanding of how people create, use and experience outdoor workspaces. Within Study one I use generic thematic analysis and grounded theory techniques based on the opportunity to generate themes and groups (thematic analysis) and enabling comparison of the themes/groups (grounded theory techniques). This process lays the foundations for the building of knowledge of this phenomenon.

In Study two (p.61) I focus on the individual experience over six months to build on the knowledge gained from Study one to uncover in depth detail. To do this I use Interpretative Phenomenological Analysis (IPA: Smith et al., 2011) and focus on language, descriptions and conceptual probing of implied or unsaid words to understand meaning. This study focuses on the specific experiences of participants, using a multi-method data collection approach to increase my understanding of the phenomenon in more depth.

In Study three (p.117) I capitalise on the findings of both Study one and Study two to gain specific insights into specific themes either identified in the previous studies or iteratively within this study. I focus on specific groups of

people from Study one and interview them aided by the previous knowledge gained. For this study I use a grounded theory approach which includes iterative data collection based on the findings emerging in the data as the study progresses (Foley & Timonen, 2015). This allows for the data to lead the way and aids in the development of focused knowledge towards theoretical development by way of theoretical sampling, coding and comparison of groups.

I now continue with Study one and begin with the methodology.

3.1 Methodology

3.1.1 Aims and objectives.

The conversation around where people do their work has increased in recent years (e.g., Davis et al., 2022). In response to the knowledge that workspace can now also include outdoor space (e.g., home gardens, or outdoor space at the workplace) the overall objective of this thesis is to understand the experience of participants as they take their work outside. To begin, the aim of Study one is to answer RQ1 '*How do office employees use outdoor spaces as workspaces?'* In addition, Study one was designed to obtain a broad understanding of a range of experiences in answering RQ2 *'How do people who take their office work outside understand their experience (of well-being and productivity)?'.* Thus, Study one used an exploratory survey with the objective of exploring how people were making working outside possible and how they felt about it.

The survey was developed based on an inductive approach and was aimed at anybody who had been exposed to the phenomenon (Easterby-Smith et al., 2018). The use of the survey allowed for the exploration of how people were creating, using, and experiencing an outdoor workspace by asking a variety of questions which I will discuss further within the research design section (3.1.2, p.25) of this chapter. I also used the information obtained in this study to investigate particular issues in more depth in both Study two and Study three. This chapter begins with an overview of the research design, then participants, measures, data analysis, and finally ethical review.

3.1.2 Research design

To achieve the aims of this study participants were asked to provide details about how they created, used, and experienced an outdoor workspace, and the best way to do this was to use an inductive method which allowed participants an element of freedom within some of their answers (Züll, 2016). This method of obtaining data was therefore preferable to the sole use of Likert scales or multiple-choice questions as the aim was to explore the experience from a subjective participant viewpoint (rather than solely pre-determined answers to choose from). According to Jackson and Trochim (2002) exploratory surveys which include open-ended questions are helpful in developing interview questions for use within further studies. This aligns with this overall research as Study two and Study three to follow will contain interviews. Furthermore, whilst closed response surveys are a popular choice with researchers due to ease of coding the use of open-ended questions allows for a more detailed and insightful response which according to Fife-Schaw (2012) gives rise to answers not previously considered by both the researcher and the participants.

As such the use of an exploratory survey with both closed- and open-ended questions was an ideal choice in this study because this allowed for both clarity in how the space was used and insight into how it was experienced which may not otherwise have been obtained. This was important within this study where current understanding of this phenomenon is limited.

Participants were invited to take part in the study via Prolific which is an online service which can connect researchers and potentially large numbers of credible participants for either qualitative or quantitative data collection. Prolific have a large global database of over 100,000 people who are actively taking part in research. Their ethical policy states that whilst they hold some demographic information about participants this is helpful only in so much as helping researchers to be connected with participants who suit the eligibility requirement for their study. In addition, Prolific do not have access to the participants' submissions which means that the submissions are not

processed by Prolific thereby upholding participant confidentiality and anonymisation by them.

Study one was designed to provide a broad understanding of working outside, and therefore it focused on participants from different parts of the world who worked either from an office and/or from the home or third workspace, but where importantly they had taken their office work outside during their working day either regularly or occasionally. Outside at home included areas such as gardens, balconies, patios, and courtyards. Outside at the workplace included green space at the workplace, defined outdoor working areas and non-defined outdoor areas (e.g., areas with picnic tables and benches). Third workspace areas includes such places as parks and outdoor areas at cafés or pubs. Furthermore, for the purposes of this research office work is generally defined as tasks including (but not exclusive to) emailing, meetings, working on documents/spreadsheets, reading, writing reports and phone calls.

3.1.3 Participants

The rationale for the broad range of participants for Study one was to gain further knowledge and information in relation to the experience of taking work outside either at home or at the workplace or both. This was to gain a broad representation of the experiences of working outside. Based on previous studies which had explored outdoor workspace (e.g., Mangone et al., 2017; Petersson Troije et al., 2021) I made a conservative assumption that 7-10% of the working population may work outside. This assumption was based on flexible working patterns which have emerged since the Covid-19 pandemic and how being outside in nature has become a positive well-being resource, (Loebach et al., 2022) to manage stress. To obtain a sample size of 100 I therefore sought an initial sample of 1000 people (the final number totalling 1017).

I had a number of criteria that allowed me to choose pre-screening options within Prolific to select my sample based on the study title within Prolific of 'Do you ever take your office work outside?'

- The first screening option was that participants had a job that involves office work. This was a criterion based on how likely it was that the people who do these jobs worked in an office environment and carry out office type work. The industry jobs I chose as screening choices within Prolific were administration staff, junior management, middle management, upper management, and trained professionals. I discounted people who were less likely to be able to take their work outside. This for instance included skilled labourers, on the basis that this job is generally less likely to be done in an office environment.

- The next criterion was that they were not new to the job. Organisational tenure was restricted to anywhere between 7 months and 5 years plus. I deliberately chose the screening choice in Prolific of a minimum tenure of 7 months to determine that the sample had experienced the opportunity to have taken their office work outside during seasons which were perhaps more palatable to being sat in an outdoor space anywhere in the world.

- The next criterion was that they are English speaking. This was a criterion for ease of survey completion and in case of them being invited to take part in an interview in a later study. I used the screening choice in Prolific that participants needed be fluent in English.

- Next was that they did not work night shifts. This was a criterion based on understanding that it was less likely that people would take their office work outdoors at night due to lighting and security concerns. Where the decision came to hours which the potential participants might work, I used those who either worked a regular 9-5 day or worked rotating shifts which did not include night shifts screening choices within Prolific.

- The final screener chosen was that survey participants needed to be willing (if chosen) to take part in a video call interview (during study three). I felt it was important to screen for this at the outset of the process because the interviews which were designed to take place in Study three would use video call interviews and the participants for Study three would be drawn from Study one.

- There are some pre-screening options in Prolific which I made a
choice to not include. These included gender, age and nationality and
they were not included in the pre-screening process because I wanted
to keep the survey open to the primary notion of experience. This
decision was pragmatic given that I was curious to see what the
natural working age, gender and nationality sample would be. At this
point there was no existing data to suggest that there would be any
gender, age, or nationality differential in terms of the experience of
taking work outside and so I wanted to capture these nuances from
the outset.

The invitation to take part in the study was published (went live) on 8th
December 2022 at 11:27am and potential participants were informed of the
study by Prolific via a notification message. Potential participants were
advised that the linked Qualtrics survey (which I discuss in more detail in the
next sub-section, 3.1.4, p.28) would take approximately 5 minutes to
complete. Indeed, the average time participants took to complete the survey
was measured at 4 minutes 53 seconds, which gave me an indication that
the survey questions were answerable within the timeframe specified and
valid related to the topic area. I made the decision to manually approve the
payments to the participants to reflect that I had checked that the surveys
had been completed effectively.

After potential participants had read the brief description of the study
(appendix i) and if they were interested in learning more and how to
participate, they were directed to a new window containing the Qualtrics
exploratory survey. Once on the Qualtrics page access to the survey was
based on participants having read and understood the participant information
sheet (appendix ii) and had ticked that they had consented to take part in the
study based on this understanding.

3.1.4 Measures

The Qualtrics exploratory survey consisted of 14 questions and was a
mixture of worded answers, multiple choice answers and a slider scale. Use
of a variety of ways of answering the questions was based on the easiest

and most appropriate way of responding. Response instability (Zaller & Feldman, 1992) suggests that many survey respondents do not have a fixed point of view and that in a closed survey people would choose the nearest option to how they felt and not necessarily how they did feel. The inclusion of different ways of answering questions was hoped to capture detail (O'Cathain & Thomas, 2004) that represented the person more than fixed answers where they were only able to answer with an approximation level or the nearest level to their thinking.

The Qualtrics survey was made up of 5 sections (see table 2, p.33). The first section sought to describe the context of their outdoor working. First, I asked how often and if participants took their office work outdoors both at the workplace and at home; obtained through responding to two separate questions on a scale from (1) Never to (3) Regularly. This was followed by a multiple-choice question asking what type of outdoor space they had used when they took their work outside (Outdoor designated area at the workplace; Non-specific area at the workplace; Home Garden; Park; Outdoor space at a café etc; Walking; Other). Participants were then asked the extent to which they would like to take their work outside (using a scale from (1) Definitely not to (5) Yes).

The second section considered the process of participants thinking about taking work outdoors. The participants were asked to use three words to describe how they felt when they were thinking about taking their work outdoors. This was followed by asking participants to describe what would encourage or discourage them in taking their work outdoors; (an open-ended question). To complete this section there was a multiple-choice question with regards to what would influence them in their decision to take their work outdoors (Greenery; Climate; Noise; Avoiding the office; Other). The reason for asking participants to consider how they felt when they were thinking about taking their work outside was important to understand any drivers, barriers, and pre-conceived ideas about working outdoors. This was a relevant benchmark from which to start to understand if there was any priming effect occurring which would possibly affect how they felt when they took their work outdoors.

The third section captured the experience of participants working outside. This section began by asking participants what three words they would use to describe how they felt when they were working outside. This was followed by two multiple choice questions, the first regarding tasks taken outside (Emailing; Phone calls; Meetings; Reading; Working on documents/spreadsheets; Other) and the second regarding what technology they used when they were outside (Laptop; Tablet; Mobile phone; Other; Did not use technology). The next question used a slider scale between 0 – 150 minutes to answer the question, and this related to the average amount of time participants spent outside at any one time. The final question in this section was multiple choice and asked if they worked alone, with others or both. The questions in this section were relevant to build understanding of the experience of taking office work outside together with what work was undertaken, what technology was used and for how long they did this for. It was hoped that this would give me new insights into both the experience of feelings, actions, and behaviours of the participants when they worked outside and how they made working outside possible.

The next section asked participants to use three words to describe how they felt when they returned inside after taking their work outside. Asking the 'what three words question' over three different time points from thinking about, to taking and then to returning inside was intended as a narration tool so that liminal data would be captured that represented the participants' experiences in relation to the changing spaces within which they were working.

In the final section of the survey the participants were asked about their willingness to participate in the follow up study. This was helpful to know as Study three was going to use audio recorded interviews and I needed to know the potential willingness of participants to take part in these. However, other methods of data collection to be used in the future were not ruled out at this stage and therefore it was good to find out what participants might be interested in taking part in. These methods included audio recorded interviews, audio diaries, photos, and surveys.

Details of how the answers were coded are shown in the table 2 (p.33). The data related to the 'what three words' questions and the question regarding 'what would encourage/discourage participants to take their office work outside' remained in word form to uphold the contextual detail for the individual participant.

Prior to the survey going live the survey underwent a checking and piloting procedure. To do this I asked an academic from a UK university to take the survey so that I had feedback regarding the questions (the type of questions asked and if they made sense) and of the time it took to complete the survey. The main feedback was related to the time it took to complete the survey. Thus, the checking and piloting procedure allowed for a change to the timeframe (from three to five minutes) within which the survey could be completed. The implication was that participants were being paid for their time to complete the survey and as such the longer time meant that they were not being asked to complete a survey which was unrealistic within the timeframe.

Participants' demographic data were downloaded from Prolific to the University Office 365 one drive in a separate excel file. This meant that I had knowledge of where participants were geographically located, their age, gender, ethnicity, job role and tenure and I was able to combine this to the participants' survey data in the Qualtrics transferred file. The data for which country they were in was inputted in full, where the data for age, gender, job role, tenure and ethnicity was coded as shown in the table (1) below.

Table 1. Coding of demographic descriptors in excel.

Demographic Descriptor	How coded in the excel document
Age	18-24 = 0, 25-34 = 1, 35-44 = 2, 45-54 = 3, 55-64 = 4, 65+ = 5
Gender	Male = 1, Female = 0
Job role	Admin = 1, Junior management = 2, Middle management = 3, Upper management = 4, Trained professional = 5
Tenure	7-12 months = 1, 1-2 years = 2, 2-5 years = 3, 5 years+ = 4
Ethnicity	White = 1, Black = 2, Mixed = 3, Asian = 4, Other = 5

3.1.5 Data Analysis

The survey data for Study One was important in the exploration of the 'how' and 'why' processes which participants had experienced. Generic thematic analysis (Saunders et al., 2016) was used which also allowed me to use grounded theory techniques without having to follow a pre-determined framework (Chapman et al., 2015). Grounded Theory is an iterative approach where emergent theory is grounded in the experience of the participant and their subjective understanding of that experience (Gioia, 2021). The benefit of methodological triangulation (Annells, 2006) within this study was to aid (Pratt et al., 2020) a clearer understanding of the experience of taking work outside.

Transferal of the survey data from Qualtrics to an excel file was done in both numeric form (including how often participants took their office work outside both at the workplace and at home, the type of space they worked in, whether they would in the future take their work outside, what would influence their decision to work outside, the task undertaken, the technology used and whether they worked alone or with others). In addition, some of the data was transferred in word form due to the number of different answers which were used to describe participants' experiences. These included the

use of three words to describe how participants felt when they were thinking about taking their work outside, how they felt when they took their work outside and how they felt when they returned inside, together with describing what would encourage or discourage them to take their work outside. Numerically coding this data was out of the question due to the subjective variance in the answers given by the participants and the chance of losing the potency of the descriptors used. The excel file containing the data was then stored on the University of Leeds 365 one-drive. Below is a table (2) showing the Qualtrics survey questions and how the data was coded in the excel spreadsheet.

Table 2. Coding details of data from the Qualtrics exploratory survey.

Survey Question	How coded in the excel spreadsheet
SECTION ONE	
Q.1 Have you taken your office work outside when you've been working at your organisation's office, and if so, how often?	Regularly = 3 Occasionally = 2 Never = 1
Q.2 Have you taken your office work outside when you have been working from home, and if so, how often?	Regularly = 3 Occasionally = 2 Never = 1
Q.3 Thinking about the outdoor space you have used for working outside what type of space has this been? Please tick all the relevant answers. – Selected choice	Outdoor designated area = 1 Non-specific outdoor area at the workplace = 2 Home garden = 3 Park = 4 Outdoor space at a café etc = 5 Walking = 6 Other = 7 I have not taken my work outside = 8
Q.4 To what extent would you like to take your office work outside either at the workplace, at home or working remotely?	Yes = 5 Probably yes = 4 Might or might not = 3 Probably not = 4 Definitely not = 1
SECTION TWO	
Q.5 When you think about taking your office work outside what three words best describe how you feel?	Three-word answer
Q.6 Imagine now that you are working and thinking about taking your work outside.	Open-ended answer

What would encourage or discourage you to do this?	
Q.7 If you would like to take your work outside which factors would influence your decision? – Selected choice	Greenery = 1 Climate = 2 Noise = 3 Avoiding the office = 4 Other = 5 I have not taken my work outside = 6
SECTION THREE	
Q. 8 When you do take your office work outside what three words best describe how you feel?	Three-word answer
Q.9 Thinking about the times when you have taken your office work outside what tasks have you done outside? Please tick all the boxes which apply. – Selected choice	Emailing = 1 Phone calls = 2 Meetings = 3 Reading = 4 Working on documents/spreadsheets = 5 Other = 6 I have not taken my work outside = 7
Q.10 Thinking about the tasks which you have taken outside what technology did you use? Please tick all the boxes which apply. – Selected choice	Laptop = 1 Tablet = 2 Mobile phone = 3 Other = 4 Did not use technology = 5 I have not taken my work outside = 6
Q.11 Thinking about when you have taken your office work outside, how many minutes on average did you work outside for? If more than 150 minutes (2.5 hours) please choose 150 minutes.	Sliding scale answer from 0 – 150 minutes
Q.12 Typically when you have taken your work outside have you been more likely to work alone or with others?	Alone = 1 With others = 2 Alone and with others = 3 I have not taken my work outside = 4
SECTION FOUR	
Q.13 Thinking about a time when you have taken your work outside, what three words describe how you feel when you return to working indoors.	Three-word answer
SECTION FIVE	
Q.14 Would you be willing to take part in further related and paid studies using any of the following methods?	Audio interview = 1 Audio diary = 2 Photos = 3 Survey = 4 None = 5

Coding of the textual data began with open coding of the data where the researcher remains open to as many codes as is necessary (Chun Tie et al.,

2019). This process began with the answers to the 'what three words' answers because this was the participants describing their experiences using three words only at three time points. I transferred the data related to the three time points of the three-word questions to a Pdf file, and an excel file and stored these on the University of Leeds Office 365 one-drive. Once this was completed for all three time points, I was able to focus on the words only through immersion whilst developing theoretical sensitivity. According to Chun Tie et al. (2019) theoretical sensitivity is somewhat of a balancing act of keeping open to what is emerging in the data whilst also being able to simultaneously spot items which may be of significance to the emerging theory. This was an interesting process where seeing the participants' lived experience reduced to three words led to a deeper curiosity to understand more.

The next stage was focused coding. Focused coding is about deciding which codes are the most frequent or indeed significant within the study and then re-visiting the data to gain more understanding about where these codes occur. This then leads to greater understanding of the code and may be indicative of a lightbulb moment for the researcher of data rediscovery. Charmaz (2006 p.59) describes this as "active involvement". This 'active involvement' for this study was shown through the consideration taken to immerse myself into the emerging data and consider the words used by participants as they determined to describe their experiences in just three words.

When participants were thinking about taking their work outside there were 630 different words used (appendix iii), when participants were working outside there were 565 different words used (appendix iv), and when participants returned inside there were 630 different words used (appendix v). There were both positive and negative experiences between participants at the three time points of the 'what three words' questions so answers were coded as either positive, negative or both. For instance, if a participant had used the three words of happy, calm and relaxed when they were working outside this was coded with a 1 in the positive column and a 0 in the negative column for this question. If, however they had reported happy, calm and

stressed this was coded 1 in the positive column and 1 in the negative column.

Once this coding had been completed for all three of the time points the next stage was to place participants into groups based on how they had been coded at the three time points. Overall, the process allowed me to look at the individual words to understand the extent and the variety of experiences within the group and then I was also able to code the individual experience across the three time points. Eight groups were identified from this process which I will discuss further in the following results sub-section 3.2.4, (table 9, p.49).

3.1.6 Ethical Review

Anonymisation of the data was upheld during the study as only the Prolific identification number was known for each of the participants.

3.2 Results

The survey data from this study allowed for an exploration into the experiences of participants who took their 'office' work outdoors be this at the workplace, at home or both. This survey had a geographically broad range of participants based in different settings which helped to develop the understanding of how participants were creating and using an outside space to work in and what their experience was as they do.

3.2.1 Participant demographics

Participants within Study one resided in many different countries as shown in the table (3, p.38). This means that the season during which the participants were completing the study may have created different subjective experiences. For instance, on the one hand because the study took place in December, some countries in the Northern hemisphere such as the UK and Poland would have been experiencing colder, shorter days which potentially were not aligned to taking work outside. On the other hand, participants from some countries such as Italy, Spain and Portugal may experience temperate conditions which still allow for working outside in the winter. Furthermore, the southern hemisphere may have been experiencing warmer, longer days and taking work outside was still occurring more frequently. In addition, because participants resided over different time zones the potential for people in some countries to take part ahead of other people may have been determined by who answered their message from Prolific first depending on the time of day.

The participants in this study were situated in the middle of the working years (18-55) which was to be expected when considered amongst a professional context of admin, managerial and trained professionals (M = 36.84, SD = 9.98). The average organisational tenure (M = 3.11, SD = 0.95) equated to an average of between 2-5 years. The percentage of males and females was roughly equal (F = 50.85%, M = 49.15%) and the participants were predominantly caucasian (71.39% white, 19.01% black, 3.64% mixed, 5.16% Asian and 0.81% other). Participants came from across the five job roles specified within the Prolific screening questions: 16.58% worked in administrative roles, 14.16% worked in lower management roles, 33.97%

worked in middle management, 9% worked in upper management roles and 26.29% were trained professionals.

Table 3. Countries and number of participants from these countries.

Country of residence	Number of participants	Country of residence	Number of participants
Australia	1	Italy	14
Austria	2	Korea	1
Belgium	3	Latvia	1
Canada	11	Mexico	9
Chile	2	Netherlands	10
Czech Republic	5	Norway	2
Denmark	1	Poland	29
Estonia	4	Portugal	26
Finland	3	Slovenia	1
France	7	South Africa	199
Germany	15	Spain	23
Greece	13	Sweden	4
Hungary	7	United Kingdom	534
Ireland	12	United States of America	49
Israel	3	Undisclosed	4

3.2.2 How do office employees use outdoor spaces as workspaces?

To begin, I examined how participants were using the outdoor workspace by considering which tasks participants were doing when they were outside, how long they would work outside and what type of technology they would use to help them to create the space as somewhere to work from. Furthermore, I was able to determine whether they would primarily work alone or with others, the type of space they would work in and what factors would influence their decision to take their work outside.

When they have gone to their traditional workplace, most people work outside occasionally (56%), with a proportion never working outside (31.4%) and a small number regularly doing so (12.5%). However, when they are at home although only a small number still only work outside regularly (15%), many more people work outside occasionally (63.4%) and fewer never work outside (21.5%). In general, working in the home garden (30.88%) and/or an outdoor space such as a café (21.05%) were the most common spaces used away from the office. When people were at the workplace an outdoor designated workspace (10.93%) and non-specific outdoor space at the workplace (13.83%) were also popular choices.

When people were asked about the extent to which they would like to take their office work outside a few people answered definitely not (2.88%) and some probably not (10.71%). On the other hand, a large percentage said yes (28.87%) or probably yes (38.39%), that they would like to take their office work outside.

The average amount of time that people spent working outside varied (M = 52.44, SD = 29.42) with a large percentage of people being outside for between 45-60 minutes (27.95%). There was also a proportion of people who spent longer lengths of time outside averaging over 90 minutes (14.07%) and a similar number who were outside for shorter amounts of time averaging between 0-15 minutes (15.16%).

The work itself was mostly solitary: People were more likely to work outside alone (67.5%) than with others (5.58%), and, following this, a large proportion of tasks were those which can be accomplished alone such as emailing (25.73%), working on documents/spreadsheets (22.56%), phone calls (17.4%) and reading (18.8%). Meetings involving other people were not as prevalent (10.8%). The technology used in support of the tasks showed that laptops (47.3%) and mobile phones (38.45%) were generally used, while very few (0.7%) did not use technology at all.

3.2.3 How do people who take their office work outside understand their experience? What encourages and discourages people to take their work outside?

To try and understand more about why participants worked outside I asked about things which may have influenced the participants' decision to take their work outside. Understandably, climate was the most common influencer (32.24%), but noise (27.34%) and greenery (25.09%) were also common influencers.

The question 'Imagine now that you are working and thinking about taking your work outside. What would encourage or discourage you to do this?' revealed a large amount of data. An initial word cloud enquiry (see fig.1) showed again the influence of climate with 'weather' being the most mentioned word (434 times) and 'cold' the second-most mentioned (84 times). Noise was the next most mentioned with 74 mentions.

Fig.1 Encouragers and discouragers to taking office work outside.

When I created a broad categorisation of the words used within the answers it revealed nine overarching categories – climate, noise, affordances, nature, work tasks, environment, space, feelings and organisation detailed below in table 4.

Table 4. Overarching categories and number of mentions from the answers to what are the encouragers/discouragers to taking work outside.

Overarching category	Climate	Noise	Affordances	Work tasks	Nature	Environ-ment	Space	Feelings (well-being)	Organisa-tion
Number of times mentioned	59	29	72	97	20	25	90	63	55

The functional aspect of working was important to some participants. How people were able to work is related to what is in the outdoor space (e.g., affordances) and this was limiting for some "No internet or charging points" which could have an effect on work tasks taken outside "the type of work I need to do would dictate if I work outside".

However, most participants were encouraged or discouraged by the phenomenon of being outdoors. Similar to the closed-ended question above related to influencers, many participants mentioned the weather and the associated conditions as both encouragers and discouragers, depending on the type of weather encountered (e.g., "I would be encouraged by the nice weather but discouraged by bad weather"). Similarly, noise was experienced as both facilitative ("I am encouraged by outdoor environment, the peaceful sound or the sound of people talking at the background") and as something which can be distracting ("The noise/disturbance from outside e.g., neighbours").

Some people described how nature was important in encouraging them to take work outside "I love nature so if I'm ever given the chance to work outside, I will take it" and the overall environment "Being in a quiet, peaceful environment". Similarly, outside space was referred to in terms of the lack of walls and openness "Being out in the open and with fresh air would encourage me" but that the open space did not work for everybody "don't like the open space".

Some participants felt that an encouragement for taking work outside was related to feelings of well-being "working outside maybe in a garden in a sunny day is relaxing and calming for your stress and your body and mind"

and "Being outside in nature where everything is calming and relaxing. Where I won't have to be tied to the desk and chair". However, positive feelings were not universal "I'd be mostly encouraged by not having to deal with my coworkers and wanting to work alone. I'd be discouraged by the worrying thoughts of oh, what if something happens at the office when I am not there, what if I am needed, what if I get in trouble." These negative feelings are indicative of organisational sanctions over where doing work is acceptable "My boss would be upset if I left my desk" and "If leadership and upper management encouraged us to do it. It would be discouraging if everyone looked down on it, or if necessary Wi-Fi and systems didn't work well outside".

3.2.4 How do people who take their office work outside understand their experience? How do they feel before, during and after working outside?

The 'what three words' question was asked at three different time points namely thinking about taking work outside, whilst working outside and on returning inside. Tables 5 (p.46), 6 (p.46) and 7 (p.47) show the number of words applicable to each of the main categories identified at each of the time points across all participants.

When thinking about the possibility of taking their work outside, positive low-arousal emotions, including "relaxed", "content" and "calm" were most commonly reported by participants (41.2%) but there were also instances of negative emotion being expressed, for example "stressed", "annoyed" and "angry" (4.7%). This bifurcation became a little more extreme when people thought about actually working outside; mentions of positive low-arousal emotion became more frequent at 51.3% represented by words such as "chilled" while negative emotion shown by words such as "irritated" were less frequent (3.8%). However, when thinking about returning inside after working outside mentions of positive low-arousal emotion (e.g., "rejuvenated") were substantially reduced (38.6%) and mentions of negative emotion expressed by words such as "miserable" increased (16%).

High arousal emotions displayed a slightly different pattern. When thinking about the possibility of taking their work outside, both positive creativity (e.g.,

"inspired") and positive productivity (e.g., "motivated") were well represented within the answers (13.3% and 8.5% respectively) with the negative connotations of creativity (e.g., "daydreaming") and productivity (e.g., "bored") reported in smaller numbers (0.2% and 3% respectively). Similarly, when thinking about actually working outside, positive creativity (e.g., liberated"; 12.3%) and positive productivity (e.g., "efficient"; 10.5%) were mentioned much more often than negative creativity (0.2%) and negative productivity (2.1%) reported as "dreamer" and "distracted" respectively. When thinking about returning to the office, however, there was a striking difference between the frequency with which creativity and productivity were mentioned: while participants mentioned productivity positively at about the same level as they had while thinking about working outside ("focused"; 11.6%), mentions of creativity dropped substantially ("inspired"; 1.4%). At the same time, participants also considered the negative sides of creativity (e.g., "unstimulated"; 1%) and productivity (e.g., "distracted"; 5.3%) more often than they did when considering taking their work outside or actually working outside.

As with the responses to encouragers/discouragers, participants also considered the outdoors itself. When they thought about the possibility of working outside, nature (e.g., "air") and the climate (e.g., "sun") were mentioned positively (4.8% and 3.5% respectively); and this was also the case when participants thought about actually working outside (2.3%, e.g., "light", and 1.8%, e.g., "breeze"; respectively). Negative words about the climate such as "cold" and "windy" were less frequent than positive words and were referred to more often when thinking about the potential of working outside (1.5%) than when thinking about actually working outside (0.8%). No negative words related to nature were used at either time-point. As might be expected, there were few occurrences of nature and climate words when participants thought about returning inside and these encompassed both positive and negative words: Nature was referred to positively (0.5%) as "sunshine" and negatively (0.1%) as "artificial" while climate was represented in equal numbers (1.6%) with words such as "warmer" and "dark", respectively.

Interestingly, spatial words were more clearly associated with the outdoors when thinking about the possibility of working outside, (e.g., "open") than when thinking about actually working (e.g., "clean"). In both instances, however, positive words were used more frequently (9.2% and 6.8%, respectively) than negative words (e.g., "exposed", 1.6%; and e.g., "impractical", 0.5%; respectively). When thinking about returning inside after working outside, however, there were more comments related to space as a negative (6.3%), for instance as "claustrophobic", than as neutral or positive (e.g., "normal", 4.3%).

From an organisational perspective, the picture was mixed. When people discussed affordances when thinking about the possibility of working outside, there was equal mention of negative words such "impractical" (1.3%) and neutral or positive words such as "furniture" (1.2%). However, when thinking about actually working outside, there were fewer negative affordance references (e.g., "blinded"; 0.6%) than the positive counterpart (1.3%) such as "comfort". This pattern remained when people considered returning inside, however the affordances were now focused on traditional office furniture with positive affordances (1%) represented by words such as "desk" and negative affordances (0.2%) as "uncomfortable".

The influence of managerial control also came through in these data. When thinking about the possibility of working outside, mention of management tended to be negative for instance "scared" (2.4%) rather than positive (e.g., "trusted"; 1.1%) however only a few people mentioned autonomy either positively (e.g., "untethered"; 0.4%) or negatively (e.g., "controlled"; 0.2%). This pattern remained when thinking about actually working outside and when thinking about returning inside with management negative comments (e.g., "naughty" and "controlled"; 1.4% and 2.8% respectively) more frequently occurring than positive comments (e.g., "encouraged" and "allow"; 0.6% and 0.6%, respectively). Positive representations of autonomy remained infrequent across both time points (e.g., "control"; 0.6% and 0.3%) however, negative representations, while not occurring when thinking about actually working outside, became more frequent when thinking about returning inside (e.g., "imprisoned", 1%).

The categories with the % number of times that words were used within each category at the three timepoints of the 'what three words' question are brought together for ease of comparison in the table (8, p.48).

Table 5. Categories and frequency of words used – thinking about taking work outside.

Category	Emotion		Creativity		Productivity		Nature		Climate		Space		Affordances		Management		Autonomy	
Number of words	Pos 135	Neg 71	Pos 27	Neg 6	Pos 56	Neg 46	Pos 23	Neg 0	Pos 24	Neg 12	Pos 82	Neg 23	Pos 7	Neg 10	Pos 19	Neg 30	Pos 7	Neg 2
Total number of times words used	1241 = **41.2%**	141 = **4.7%**	400 = **13.3%**	6 = **0.2%**	257 = **8.5%**	89 = **3%**	143 = **4.8%**	**0.0%**	105 = **3.5%**	44 = **1.5%**	277 = **9.2%**	47 = **1.6%**	37 = **1.2%**	39 = **1.3%**	32 = **1.1%**	71 = **2.4%**	12 = **0.4%**	7 = **0.2%**

Table 6. Categories and frequency of words used – thinking about when working outside.

Category	Emotion		Creativity		Productivity		Nature		Climate		Space		Affordances		Management		Autonomy	
Number of words	Pos 175	Neg 49	Pos 25	Neg 6	Pos 59	Neg 27	Pos 22	Neg 0	Pos 18	Neg 9	Pos 57	Neg 10	Pos 8	Neg 7	Pos 8	Neg 17	Pos 9	Neg 0
Total number of times words used	1472 = **51.3%**	110 = **3.8%**	354 = **12.3%**	7 = **0.2%**	301 = **10.5%**	61 = **2.1%**	66 = **2.3%**	**0.0%**	51 = **1.8%**	22 = **0.8%**	195 = **6.8%**	10 = **0.5%**	37 = **1.3%**	17 = **0.6%**	16 = **0.6%**	39 = **1.4%**	18 = **0.6%**	**0.0%**

Table 7. Categories and frequency of words used – thinking about returning inside.

Category	Emotion		Creativity		Productivity		Nature		Climate		Space		Affordances		Management		Autonomy	
Number of words	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
	149	118	12	11	50	32	9	2	7	5	44	42	11	2	8	29	4	10
Total number of times words used	1069 = **38.6%**	443 = **16%**	39 = **1.4%**	29 = **1%**	321 = **11.6%**	147 = **5.3%**	13 = **0.5%**	2 = **0.1%**	45 = **1.6%**	45 = **1.6%**	118 = **4.3%**	175 = **6.3%**	29 = **1%**	6 = **0.2%**	17 = **0.6%**	78 = **2.8%**	7 = **0.3%**	28 = **1%**

Table 8. Comparison percentages across 3 time points within each positive and negative category.

Category	Emotion		Creativity		Productivity		Nature		Climate		Space		Affordances		Management		Autonomy	
Number of words	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
% What 3 words when thinking about taking work outside	41.2	4.7	13.3	0.2	8.5	3	4.8	0.0	3.5	1.5	9.2	1.6	1.2	1.3	1.1	2.4	0.4	0.2
% What 3 words when working outside	51.3	3.8	12.3	0.2	10.5	2.1	2.3	0.0	1.8	0.8	6.8	0.5	1.3	0.6	0.6	1.4	0.6	0.0
% What 3 words when return inside	38.6	16	1.4	1	11.6	5.3	0.5	0.1	1.6	1.6	4.3	6.3	1	0.2	0.6	2.8	0.3	1

The results from the answers to the 'what three words' questions have demonstrated that there were both positive and negative experiences across many domains (categories). This allowed me to place the participants into one of the 8 different groups identified (shown below in table 9) aiding comparison of the use of an outdoor space within which to work based on their experiences. These groups included people who experienced both negative and positive feelings at the same time point and within the same category. Furthermore, the use of these groups will enable me to select participants from each of the groups to explore the phenomenon further in Study three.

Table 9. Overall groupings based on positive and negative experiences over the three 'what three words' time points in the study.

Groups	'What 3 words best describe how you felt when you were thinking about taking your work outside?' (1)	What 3 words best describe how you felt when you were working outside?' (2)	What 3 words best describe how you felt when you returned back inside?' (3)	Number of participants in the group
1	Positive	Positive	Negative	332
2	Negative	Positive	Negative	18
3	Positive	Negative	Positive	9
4	Negative	Negative	Negative	31
5	Negative	Positive	Positive	31
6	Negative	Negative	Positive	51
7	Positive	Negative	Negative	16
8	Positive	Positive	Positive	524

Within this results chapter I have shown how participants are creating their outdoor space so that they may work there (e.g., use of technology), how they are using the space (e.g., for how long, who with and the tasks undertaken). Furthermore, the experience of taking work outside is varied in terms of what may influence them to take their work outside (e.g., the weather, climate, noise and greenery), what may encourage or discourage their decision to take work outside (e.g., tasks, the outdoor space and affordances of the space). Furthermore, both positive and negative feelings related to the experience have been captured at three time points and within nine categories. These experiences have enabled participants to be grouped according to their positive and negative answers for the purposes of further exploration in Study three.

3.3 Discussion

3.3.1 Introduction

In Study one an open-ended exploratory survey was conducted to capture a broad overview of what working outside looks like for a broad range of participants to answer RQ1 '*How do office employees use outdoor spaces as workspaces?*' and RQ2 '*How do people who take their office work outside understand their experience?*'. Through the survey I was able to gain more knowledge about the experiences of the 1017 participants.

The extent to which people were taking their work outside and would like to carry on doing so was a significant finding within this study. Participants were working outside on various tasks, were using technology in the pursuit of their tasks, and were also enjoying well-being benefit from doing so. I begin this discussion chapter with an overview of how participants were creating and using an outside space to work in. This is followed by why participants were taking their work outside and lastly, how, and what they experienced taking their work outside.

3.3.2 An overview of working outside.

The results showed that many more people were taking their office type work outside than may have been anticipated prior to the study taking place. At the workplace this equated to over half of the participants occasionally taking their work outside and nearly two thirds occasionally taking their work outside at home. Furthermore, the extent to which they wanted to do this was generally positive. This provides significant knowledge about the appetite for taking work outside amongst this cohort. The ability to use space flexibly has potentially led to the outdoors becoming a viable workspace and this has undoubtedly been affected by the Covid-19 pandemic where there was an increase in this flexibility and hybrid working (Davis et al., 2022). Although these data are likely to be skewed based on self-selection (the study's title may have appealed more to those who worked outside than others), the very high levels reported suggest that, even in a representative sample working outside is becoming a normal part of working for many people, and that people are finding ways and places to go and do their office work. However,

the data also suggest that there are other considerations to consider, such as negative experiences upon returning inside and difficulties associated with management.

Based on the answers to the survey questions participants were feeling able to work outside of the normalised workspace. The home garden was a popular choice for people as were outdoor areas at the workplace (designated areas and non-specified areas). The outdoor space seemingly affording (for some) that certain tasks could be achieved there. Over two thirds of the participants were more likely to be working outside alone, this was reflected in the tasks which people were predominantly doing outside (e.g., emailing, reading, phone calls, working on documents/spreadsheets). There is perhaps some degree of choosing the right task for the right space at the right time (e.g., location autonomy: Wu et al., 2023). This may help to explain how people were more likely to take their work outside alone and to work on tasks which did not require interaction with others allowing for self-regulation against possible external pressures (homeostasis). This also means that people can make a snap decision about taking their work outside because solo tasks do not require others to be considered as part of the process. Meetings were less represented with around a tenth of participants taking part in these multiple person activities. It may be that some tasks are considered as more aligned with being able to take outside than others particularly if people are choosing lone time. Laptops were used the most outside in support of the tasks.

In consideration of the length of time spent outside I refer to the literature related to micro-breaks in the literature review. The literature supports that green micro-breaks can be beneficial to a workforce (Largo-Wight et al., 2017; Lee et al., 2018). However, this study found that participants tended to stay outside for approximately an hour on average, which is much longer than a micro-break, and were still gaining well-being benefit. This may mean that people are allowing themselves a timeframe to be outside which reflects the tasks taken outside.

3.3.3 Why do people take their work outside?

The climate and the weather conditions are a key determinant of what would both influence and encourage/discourage people as to why they would take their work outside. This means that when the climate is less pleasant (e.g., too hot, too cold, too wet) then people may be less able to work outside and countries/cities where this happens more often may be less likely to see their workers go outside. However, the study conducted by Petersson Troije et al (2021) in Sweden showed that whilst the weather conditions had some importance in terms of the choice of when, how, and what work was done outside other factors such as accessing a pleasant outdoor environment, infrastructure, regulatory organisational rules and policies in place, trust and culture were more important. Could this be because the weather is determined as black or white and as such a decision to take work outside does not need to be laboured over (e.g., if the weather is bad, it's a no, if the weather is good, it's a yes)? Interestingly, within the 'what three words' answers of the survey climate/weather had a higher percentage of positive comments when people were thinking about taking their work outside. This suggests an anticipatory feeling which may perhaps be related to the feel of the sun or a gentle breeze. This sense activation may represent something which is yet to emerge but may be representative of a 'Madeleine de Proust' moment of the senses bringing forth childhood memories (Seraphin, 2020) of time in nature.

Noise was also expressed as an influence as to why participants may take their work outside. Within the survey noise was a fixed option related to what may influence people to take their work outside and did not determine between positive or negative experiences. However, the answers to the 'what would encourage/discourage people to take their work outside' allowed for open-ended answers offering a deeper insight into noise. Noise was expressed by some people as a discouraging element described within the data as "noise, noisy" but also in more specific negative terms such as "noise that I can't control". Alternatively, positive encouraging noise was also referred to as "background noise", "pleasant environment", "bird song" and "listening to my dogs playing and the birds chirping". Whilst hearing is a

sense which many participants are accustomed to using throughout the working day it was interesting to see the importance of noise as it emerged in the data – something which may be representative of whether tasks are completed and of any well-being gains and losses where it is understood that noise control is essential within any workplace (Van den Berg et al., 2020).

Greenery (e.g., nature) was also a popular influence towards why people were taking their work outside. Nature (i.e., greenery) was also positively reflected within the 'what three words' questions at all three time points, although less so as people returned inside (maybe due to the lack of nature inside). A popular choice of word used as people were thinking about taking their work outside was "green", and as people were working outside was "natural". Interestingly, there were no negative comments in relation to nature at these two time points. Furthermore, the percentage of people who used positive words related to nature as they were thinking about taking their work outside was higher than either of the two other time points. This suggests a level of anticipation about what the experience of being in nature will be like, possibly priming them to expect to feel a certain way in nature based on previous experiences. Negative feelings related to nature were expressed on the return inside using words such as "artificial" and "fake". This highlights a differential in the nature experience for some people. Previous research looking at the introduction of nature elements within the indoor workplace have also found mixed findings. Adachi et al. (2000) reporting indoor planting as potentially detrimental to mood and Larsen et al. (1998) stating that too many indoor plants can be distracting. Whereas a pilot study by Sanchez et al. (2018) found that the introduction of plants and daylight into an experimental office space positively affected performance, well-being, and creativity. The overall findings of this current study did not show any negative greenery (nature) feelings when participants were thinking about taking their work outside and thinking about actually working outside; this may demonstrate that the experience of nature in an outdoor space is different to the experience of nature encountered indoors.

3.3.4 How Do People Experience Working Outside?

Within this study I sought to learn more about participants' experiences of when they took their work outside. Primarily these experiences were expressed within the 'what three words' answers in which I had asked about three different time points of thinking about taking work outside, working outside and returning inside.

From the data analysis of the 'what three words' questions it emerged that the experiences of how participants felt at the three timepoints were varied to include positive and negative experiences ranging across nine categories: emotion, creativity, productivity, nature, climate, space, affordances, management, and autonomy. Nature/greenery experiences have already been discussed on page 54 of this discussion together with the climate (p.53).

The positive emotion (affect) comments were a mixture of hedonistic (e.g., "happy"), eudaimonic (e.g., "fulfilled") and transcendent well-being (e.g., "tranquillity"). At the three time points of the 'what three words' questions positive emotion was expressed (e.g., "relaxed", "happy", and "refreshed") demonstrating support for ART by way of positive emotion/restorative comments. However, as people returned inside the amount of positive emotion expressed decreased and the levels of negative emotion increased compared to the previous two time points. Indeed, even the content of the negative emotions changed across the time points: when thinking about – "annoyed"; when working outside – "frustrated"; and when returning inside - "sad". The expressions of negative affect/emotion expressed were a surprising finding which may reveal that there is something else happening to people as they take their work outside which has not yet emerged, but which means that experiences differ.

Productivity was experienced both positively and negatively. Positive comments of productivity increased gradually over the three time points (e.g., "motivated", "engaged", and "efficient"). Negative comments of productivity were also reported at the three time points (e.g., "bored", "distracted", and "unmotivated"). However, there was a drop in the numbers of reported

negative comments whilst people were working outside compared to the amount of negative productivity comments when people were thinking about taking their work outside. The number of negative productivity comments went up as people returned inside. This implies that for some people working outside may be fatiguing or distracting which opposes the potentially energising effects of nature contact as proposed by Klotz and Bolino (2021). The positive productivity findings when people were working outside is a significant finding within this study because it showed that people were maintaining directed attention and focusing on their work but that they were also feeling well and gaining the restoration benefit of being in nature in line with ART (Kaplan & Kaplan, 1989). For instance, one participant described (using three words) how they felt when they were working outside as "calm", "content", "productive". This is indicative of both productivity and restoration occurring simultaneously when working outside. This is significant because ART suggests that fatigued directed attention is restored in nature such that this is beneficial to work performance after the nature contact, whereas because some participants were feeling productive in the moment of working outside it appears that directed attention was being maintained. However, because there was also an increase in negative productivity comments when people returned inside perhaps the maintained directed attention outside meant that people were not gaining the long-term restorative benefit of being in nature.

Similarly, positive feelings of creativity were reported during thinking about and whilst working outside (e.g., "free" and "inspired"), whereas when people returned inside positive creativity comments were expressed in less numbers. At the same time (when people returned inside) negative creativity comments were higher than the previous two time points (thinking about and working outside) such as "unstimulated". This begins the process of understanding the increase in negative comments related to both productivity and creativity when they return inside. One suggestion is that this may be explained by the relationship to the space or to nature where this alignment aids goal attainment (e.g., Rogers, 1951; Sheldon & Elliott, 1999; Unsworth et al., 2014) such that some people may use nature to help them to achieve

their work goals and when they return inside the support which nature affords is lesser resulting in the negative comments.

Outdoor space is not generally normalised as the workspace for those employed in office type roles. However, there were positive comments about the space when they were thinking about taking their work outside and included "novel" and "open", and when they were working outside "convenient" and "cosmopolitan". When they returned inside comments such "normal" and "familiar" imply that outdoor space is currently not normalised as the office workspace and therefore may be subject to an element of 'newness'. On the other hand, negative comments were made with regards to the experience of the outdoor space as they were thinking about, (e.g., "unorthodox" and "unsuitable") and working outdoors (e.g., "impractical" and "unusual"). It could be that this was linked to both their own and others' perceptions of taking work outdoors, similar to some negative viewpoints historically taken about people who worked from home (Maier et al., 2022). Interestingly, people expressed more negativity and less positive comments related to space when they returned inside with "crowded" and "claustrophobic" being two examples of negative comments; the implication being that a return to the indoor space did not perhaps offer some positive benefits which had been enjoyed outdoors. This suggests that the outdoor space offers a different experience which may be related to the extent factor of ART and being able to take in a more expansive view such that this affords restoration (Kaplan, 1995).

Affordances were mentioned across the three time points both negatively (e.g., "uncomfortable") and positively (e.g., "comfort"). Interestingly, negative affordances comments were recorded more frequently when participants were thinking about taking their work outside, suggesting an anticipatory response, perhaps which is based on prior experiences. We know that indoor offices have health and safety policies and regulations in place to help people as they work (Health and Safety at Work Act, 1974) and that this Act protects workers as they are on the premises of a workplace, but currently these policies do not extend to furniture usage when working outdoors. This may help to provide an early explanation of the negative anticipatory

comments (understanding that the indoor affordances are regulated); however, when people were thinking about a time when they have actually worked outside the experience is (for some) more positive in relation to affordances.

In terms of feelings related to management the negative comments were consistently (over the three time points) more prevalent than positive comments. These negative comments included (when thinking about taking work outside) "worried" and "anxious", (when working outside) "naughty" and "on edge", and (when returned inside) "monitored" and "guilty". Positive comments were "trusted" (thinking about taking work outside), "encouraged" (working outside), and "professional"(returning inside). It seems that participants' expressions of concern over management thoughts about the taking of work outside may have the potential to overshadow what may otherwise be a more positive experience. Petersson Troije et al. (2021 p.10) refer to this asking "how pleasant is work allowed to be?". Thus, we are left with a potential barrier to people taking work their work outside where organisational/management preferences are perhaps unclear.

3.3.5 Theoretical implications

This study makes a theoretical contribution to the 'being away' factor of ART. Kaplan (1995) states that being away mentally (and to a lesser extent physically) is important to ease fatigued directed attention. This is a significant point because participants in this study were physically being away from the normalised indoor workspace but were simultaneously reporting that they were focused/productive suggesting that they were not being away mentally. This is not to say that those people who feel focused/productive outside do not feel well – the findings show that being focused/productive can be enjoyed alongside also feeling restored. The implication is that directed attention may be both restored and maintained whilst working outside. This may be explained by the notion that mentally being away is not always necessary for restoration, as being away physically from the normalised can be enough. This implication will be examined in more detail in the later studies.

3.3.6 Practical implications

In addition, this study makes a practical contribution. The knowledge that many people are already taking their office work outside and the extent to which they want to do this is more likely to be positive suggests that there is an appetite for outdoor space to work in. This is a valuable thing for businesses to know for two reasons. Firstly, people were more likely to work outside in the home garden which allows the business to be explicit in their support for people doing this at home and thus removing any negative feelings around this experience. Secondly, there is an argument for businesses to allow office staff to take their work outside at the workplace. Affordances such as some type of seating and desk/table in a natural setting would provide an opportunity for both well-being and productivity in the workforce. As people were on average working outside for less than an hour, power sockets may not be a necessary addition to any outdoor space as many technical devices would not need a top up within this time frame.

3.3.7 Limitations

As this study was designed to provide a broad description of how people work outside, the data cannot talk to causality, nor the in-depth processes involved. Its exploratory, descriptive nature has provided some initial insights, but more research needs to be conducted to understand the intricacies involved in how and why people may choose to work outside.

In addition, the use of an exploratory survey means that the problem under enquiry is not understood in any depth and as a result the survey seeks to gather information and knowledge based on what the researcher believes to be relevant. This means that there may be some relevant information and data which is missed.

A point which I have later reflected on is that the survey went live at 11:27 am on the 8th December 2022. The time that the survey was published immediately determined where the participants were most likely to live. In the case of my study this meant that most of the participants were from the Northern Hemisphere. On reflection this is worthy of noting for future studies

where I choose to use Prolific as I am now aware that the time of publishing will determine the demographic I may achieve.

3.3.8 Recommendations and future research

Practical recommendations based on the findings of this study include the explicit agreement by the management/organisation that working outside (both at the workplace and at home) is a viable workspace option and that working outside when at the workplace is aided by the inclusion of desks, tables, shading and power sockets. In addition, a variety of tables and easily movable seating are recommended to allow for solo working (small tables and one seat) and meetings (larger tables and extra seating or benches) to take place outside. Where possible any outdoor workspace at the workplace would be best located as close as possible to the main building to allow for accessibility and internet access.

To counter the lack of depth in the current knowledge of the experience of taking work outside, future research (e.g., Study two and Study three) will benefit from interviews with participants to both clarify and build upon that which we have already learnt. In doing so this will add to the extant literature in relation to HR, workplace design and management. To be clear because the data from the surveys showed both positive and negative comments from people at the three time points of thinking about, working, and returning inside this is an area to explore further.

4. Study two

4.1 Methodology

4.1.1 Aims and Objectives

There were three main aims to this study reflective of the research question posed RQ2. '*How do people who take their office work outside understand their experience of well-being and productivity'?* These being:

- Firstly, I aimed to gain an understanding of both the experience and meaning of working outside for people who do office work.
- Secondly, I aimed to develop my understanding of which elements of nature were important as part of the experience of taking work outside.
- Thirdly, I aimed to understand what needs had to be met for the participants which meant they could take their work outside.

To achieve these aims qualitative data were collected over a 6-month period using a multi-methods approach of audio-diaries, photo-elicitation, informal interviews, and semi-structured interviews. These methods were designed to capture the phenomenon from many angles to gain a broad sense of meaning of the lived experience of individual participants.

4.1.2 Research setting

The setting for this field research was The University of Leeds (hereafter referred to as the university). The university is part of The Russell Group, a group of 24 research intensive universities in the UK. The university is set within the city of Leeds and the entire campus is on one site north of the city centre resulting in the concentration of many people in one space. Like many organisations the university has had to face and overcome challenges within the last few years in response to the global pandemic. Most students and staff worked from home for the entirety of the lockdowns. As the lifting of restrictions was in the final phase (but with Covid-19 cases rising) the UK government led by Prime Minister Boris Johnson determined that post Covid 'normality' should resume. Consequently, the university re-opened its doors to both staff and students from September 2021. The university (March

2021) had some 39,000 enrolled students and 9,200 members of staff. Whilst there are only ever a limited amount of both staff and students on campus at any one time it was expected that large lectures would continue online as part of a blended learning package. This was reflective of the on-going issues which some staff and students had in returning physically to campus, but also showed the importance of alternative workspaces amongst a large workforce/cohort when they did return to campus so that they could feel safe to return to the university. In a directive as of September 2022 staff working within the business school were asked to work on campus at least two days a week thus increasing the occupation of offices and other sites.

The university was an appropriate setting for this study because it allowed me to gain access to university staff employed in a variety of office-based roles to gain knowledge of their experiences of the same phenomenon (Mills et al., 2010). Furthermore, the variety of roles were important so that organisations who are considering the merits of a future outdoor workspace could gain knowledge about the phenomenon. Second the university is currently undergoing a period of transformation costing in the region of £520m where some outdoor areas on the campus are receiving a makeover to provide additional outdoor seating areas. This study was interested in participants working outside on campus specifically which allowed me to benefit from these makeover changes to begin to have some understanding of peoples' experiences within the specific context of the university.

Participants were asked to use any outdoor space on campus to work within, offering them autonomy to choose where was best for them to work and feel well. It was further hoped that this participant autonomy would be beneficial in my understanding of the processes involved for participants and how they made sense of their choices in relation to their well-being and productivity. The campus has many green spaces and since the Covid-19 pandemic has seen an increase of outdoor seating and covered areas which both students and staff can enjoy. None of these areas had power sockets for charging mobile devices or permanent roof structures. Generally, these areas had been used for informal catch ups, drinking, and eating. Alongside this I noted that people used laptops and tablets whilst sat at these covered tables; and

so the requirement of people to work outside at a location on campus did not seem an unreasonable proposition. Justifiable concerns relating to personal security when working outside on campus were considered and participants were advised to exercise caution in their choice of where to work. In general, most of the outdoor space at the University is well used especially when the weather is temperate, and a great majority of spaces are covered by CCTV with good connectivity to the internet via Eduroam at the university. Furthermore, in May 2022 the university introduced a Safe Zone App which is linked to security 24/7 for emergency, non-emergency, and first-aid needs. This aims to encourage people to feel safe whilst on campus and is beneficial in terms of participant safety within this study.

Based on previous research the outdoor space needed to consider the nature elements within outdoor spaces (Mangone et al., 2017), be a pleasant environment (Petersson Troije et al., 2021) and be aesthetically sympathetic (Söderlund et al., 2023). As such before the study commenced, I walked around the university campus to check that the available outdoor areas met with these recommendations. This study placed importance on the value of participants choosing different areas on campus to work from in the hope that this exposed them to different environments and experiences .

4.1.3 Research Design

A multi-method qualitative design was used to answer research question two '*how do people who take their office work outside understand their experience of well-being and productivity?'.* The focus throughout the study was on the lived experience of each individual participant to gain new knowledge about the phenomenon of taking work outside; the lived experience signifying an individual's understanding of an experience. This is not without its' issues due to people's recollections of lived experiences which can be distorted due to prior experiences or over time (Casey, 2023). However, it was also important to allow for detailed insights to be gained to access potentially rich psychological data (Woods & West, 2015) of understanding the individual within a context (e.g., outdoor space).

After careful consideration and an in-depth review of the literature the specific multi-methods used consisted of participant audio diaries and photo elicitation, one informal interview and one semi-structured interview per participant. These methods of data collection were chosen because they remove bias towards a particular method (Sushil, 2018) and allow the participants the opportunity to create layers of how they made sense of their experience to enable them to tell their story effectively. Use of multi-methods means that findings were developed based on multiple data sources (Meijer et al., 2009) deepening insights into participants understanding of the phenomenon and aiding triangulation, (Lincoln & Guba, 1985). Triangulation of data is important because this means that the phenomenon is observed from different methodological viewpoints therefore offering a level of validation within the findings.

Other methodologies were considered for use within this study. For instance, observations were originally included. However, after consideration it was decided that observations would not help me to extract any further information to answer my main research question on top of that which could already be achieved through the other methods chosen. A mobile phone app was also considered as an alternative methodology and decided against as it was felt that electronic data would not provide the depth of data required for immersion when using Interpretative Phenomenological Analysis (IPA; the analysis technique to be used, as detailed more in this chapter, sub-section 4.1.10, p.78). That said it is acknowledged that this was a potentially useful tool for quick data collection which could be quantifiably analysed.

This study took place in real-time over a total span of 6 months to allow for seasonal interest and varying use which looked to capture change (Saunders et al., 2016) for both the participants and nature. Participant involvement was for 6 months for audio-diaries and photo-elicitation with a further month for individual interviews to take place.

4.1.4 Participants

Employees at the University of Leeds work in a variety of roles including office-based administration. The diversity of roles and the people who carry

out those roles were represented in the sample (Breakwell, 2012) and this was important in this study as it was hoped that the sample would be representative of other office workplaces. The reason for the use of staff members only (and not to include students) relates to the value of this research to external businesses and its transferability to other workplaces where the findings may be relevant (Woods & West, 2015). Whilst this study does not seek to be replicated or be represented as universal it is acknowledged that further organisational interest may be aided using a somewhat comparable workforce. This reflects the interest which has already been expressed towards this study from external businesses.

Recruitment for the study took two forms. First, an email was sent out to employees of the university (appendix vi) as initial purposive sampling in line with IPA (Cope, 2011) to people who fit the tenets of the study (Silverman, 2010). Second, snowball sampling was used (in line with the IPA methodology; Smith et al., 2011): participants were asked if they worked with or knew of anyone else who worked at the University who might be interested in taking part in the study.

The sample size for the pilot study was six and this was made up of five females and one male – all employees at the university in different office-based roles. The experiences of the participants were followed over 6 months – this involved the collecting of audio-diaries and photographs over this time combined with two individual interviews. As a result, participants were chosen who were best able to use the outdoor space autonomously and flexibly and had as a result, the necessary qualities (Breakwell, 2012) and were best placed (Saunders et al., 2016) in respect to answering the research question.

Participants were given a copy of the study information sheet (appendix vii) and then given at least 24 hours after receiving this before they were invited to meet up in person to discuss the study and for any questions they posed be answered. It was felt that this initial meeting was important to build rapport and trust between the researcher and the participant. At this meeting they were advised by way of the consent forms of the storage of their data, how

this will be anonymised, used in the future and the terms of their withdrawal from the study should they wish. The participants were further informed of their required active participation (audio-diaries, photo-elicitation, and individual interviews). Only once the participants' questions were answered to their satisfaction and they were happy to proceed were they asked to sign the three participant consent forms (interviews, appendix viii, photo-elicitation, appendix ix, and audio-diaries, appendix x).

The study was not without its' challenges mainly around some participant's lack of engagement due to not coming onto campus to work. Of the six people who agreed to take part in the study only four participants responded to email requests for interviews, audio diaries and photo data. The following table (10) shows the amount of collected data for each of the participants who agreed to take part in the study. I chose to give the participants a pseudonym rather than relating to them with a number out of respect.

Table 10. Table of data collected for study two.

Participant	Audio-diaries	Photos	Informal interview	Semi-structured interview
Beverley	2	0	✓	✓
Mark	0	0	✓	✓
Esther	0	0	x	x
Samantha	0	0	x	x
Martha	4	0	✓	✓
Susan	15	23	✓	✓

4.1.5 Data collection

To re-cap, this study comprised participant audio diaries, photo-elicitation, an informal interview, and a semi-structured interview as these methods are understood to be a cohesive way to understand the subjective reality in relation to the phenomenon of working outside for each of the participants. This was a key consideration within this study and helped to give insights into participant understanding and how they made sense of a phenomenon

(working outside in nature and the effect on well-being) over a 6-month period. Below is a figure (fig. 2) which outlines which method occurred and when.

This amounted to a rich amount of individual data to explore and interpret to answer the research question in this study '*how do people who take their office work outside understand their experience of well-being and productivity*'?

	Participants	Researcher
Months 1-3	Audio-diaries and photo-elicitation	
Month 3/4	Individual interim interviews	Reflexive journal
Months 4-6	Audio-diaries and photo elicitation	
Month 7	Photo-elicitation semi-structured interviews	
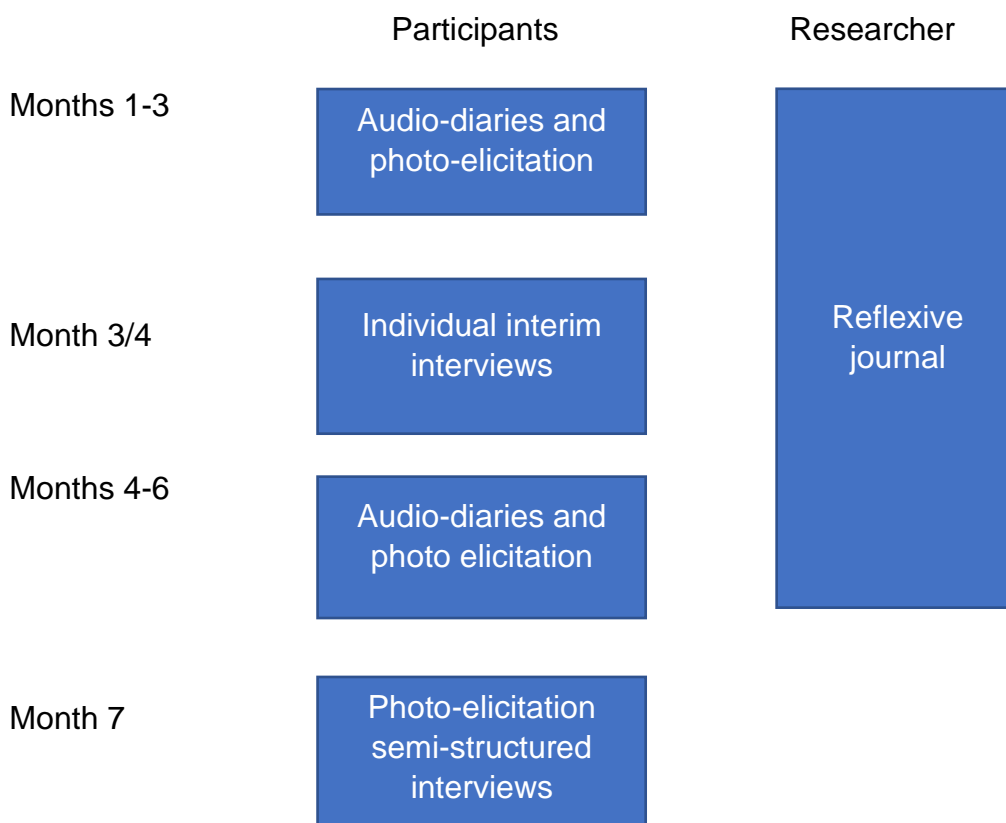
Fig.2 - Outline of timeframe of data collection.

4.1.6 Reflexive journal

When using IPA within a study it is useful as the author of that study to gain an understanding of one's own thoughts, reflections, and feelings (Cresswell & Poth, 2018). This was done by way of a reflexive journal which was helpful towards understanding the researcher's experience alongside that of the participants such that misinterpretations of the participants' experience are diminished (Gorichanaz, 2017). This is an important validity consideration

within this study and responds to a frequent criticism of phenomenology validity. According to Ortlipp (2015) the use of reflexive diaries within qualitative studies aids with transparency as the author can honestly describe their thoughts and feelings as an integral part of the study. Furthermore, using the reflexive diary as part of the study was helpful in acknowledging my bias and strongly held beliefs towards expecting positive results. For instance,

> "In my head… I feel that their subjective experience of the connection of humans and nature is pivotal in understanding why the org may want or choose to put greenery in…Is it enough… to be told that productivity will increase or that job satisfaction will increase – what does that mean?" (Reflexive journal 5/3/2022).

Writing the reflexive diary not only acknowledged my bias and beliefs around positive results but this also allowed me to shine a light on these at this point. This was helpful in that because I had brought these into the light, I felt I could then work to not allow them to unduly influence my interactions with the participants. This was not about parking the bias it was about working with the bias to ensure that I understood the participants' experiences on their terms not mine. Duncan (2004) sees this as going beyond an emotional rhetoric towards an attempt to share knowledge of one's own experience. The use of both the researcher and the participants' voices will also aid triangulation within the data to support dependability (Golafshani, 2015) and rigour (Davies & Dodd, 2002). Indeed, it is this "multidimensional concept" (Maggs-Rapport, 2000, p.222) which will offer further triangulation of the data alongside the multiple methods used and offer insights into researcher experience of the same phenomenon (Finlay, 2014) alongside that of the participants.

4.1.7 Participant audio diaries

Participants were asked to record regular audio-diaries such that the recordings became habit forming for the 6-month duration of the study (rather than a burden), and that they stated the date at the beginning of the recording (to allow for a timeline to be developed). The participants were

advised during the first contact meeting to keep the content of the audio-diaries relatively short (no longer than 2 minutes). This was an appropriate amount of time as it was felt that it would be unhelpful to over face the participants (reflective of feelings of what they may be available to give) such that this then allows the audio diary to become normalised when working outside. Each participant was given an audio-diary prompt sheet (appendix xi) as an aid to possible content within the diary, how to record, when and for how long. Verma (2021) believes that prompts provide the participants with a starting point at which to record their data. It was felt that the prompt sheet would be helpful initially for participants as they started the study, but it was hoped that the recordings would become commonplace as the study continued to capture reflective content which was key to this study.

Data which are self-reported are invaluable as a means of capturing the processes involved (Arnold et al., 2016). This is helpful to understand the lived experience during the use of an outdoor alternative workspace with immediacy and which honours the voice of the participant. Indeed, audio diaries are helpful towards in the moment insights with an emphasis on capturing detailed accounts of perspectives and reflections (Easterby-Smith et al., 2018) which may otherwise be lost. Crozier and Cassell (2015) view this as being a potential highlight of using audio diaries because the immediacy element can signal that the recording is full of meaning and people making sense of their experience. Notably, Cottingham and Erickson (2020) report that audio diary use is an ideal data collection method when attempting to capture emotion as the participants are more likely to be open and speak candidly about their experience using an audio-diary than for instance within an interview only. This, then potentially captured rich, descriptive data which was relied on to discover meaning of the phenomenon within this study. Furthermore, diaries are not subject to any influence by the researcher and as such offer the participant an opportunity to be free flowing in their thoughts from an internal frame of reference.

The aim was that the short audio diaries would be kept for all the participants as and when they chose to use the outdoors to work in. As this study data collection period was longitudinal (over 6-months) the audio diaries were to

help capture (and facilitate an understanding of) any changes felt by the participants over this time. Verma (2021) imparts the importance of capturing audio-diary data in a longitudinal study, seeing this as providing insights which might otherwise not be available or be forgotten. Indeed, Crozier and Cassell (2015) see audio-diaries as akin to self-talk where the participant is essentially talking their way through their understanding or making sense of an experience. Essentially the audio-diaries allowed a narrative to begin where the participants had trust in the study and the researcher such that their thoughts and feelings could be recorded openly. This was particularly helpful within this study where emotion captured in the moment was not only standalone data but also served to aid the participant's recollections within an interview without this being evidence to use against them – seen more as a tool to guide an interview with care where trust in the relationship had already been established. The consideration was that this was an aid towards quality within the study as defined by Flick (2018) and is in line with the desire to understand how people make sense of their experience when working outdoors.

The participants were asked to forward the recordings once a month for the 6-month duration of the study to the researcher via Microsoft Teams (this being encrypted and more secure than for instance, email). The requirement to forward audio-diary recordings monthly formed part of the participant audio-diary consent form, and this form also included details of transcription, ethical considerations, the storage of the data and how the data may be used. Participants were asked to record their experience of using the outdoor office, how they felt, and any changes in their thinking.

The audio-diaries were transcribed as they were received so that if needed amendments could have been made to the questions asked within the final interviews, such that thoughts and insights were appropriately followed up on. This iterative approach sees the introduction of abduction as described by Kennedy (2018, p.5) whereby,

> "Abduction is about discovering new concepts, ideas and explanations by finding surprising phenomena, data, or events that cannot be explained by pre-existing knowledge".

This meant that there was an on-going narrative between the data, theory, and analysis to provide findings which were robust and strengthened as a result (Kennedy, 2018).

The participants were also asked to record a short diary entry even when they had not used an outdoor space to work in within a calendar month as this would help to draw up a balanced view of the uptake (or not) of any outdoor space over the course of the study. It was noted that for some people the use of an audio-diary may feel uncomfortable and create additional worry. To lessen any concerns the requirement of regular audio diary recordings and submission were notified at the initial meetings with the participants. Where no diary entries were received for a participant within a given month during the study term contact was made with them via Microsoft Teams so that together we could understand and address their concerns/lack of engagement. It was felt that the relationship which was built as a fundamental part of using IPA in this study helped with any subsequent conversations because a degree of trust already existed. To recap the number of audio-diary recordings received is detailed below in table 11.

Table 11. Table of participants and the number of audio-diaries received.

Participant	Number of audio-diaries recorded
Beverley	2
Mark	0
Esther	0
Samantha	0
Martha	4
Susan	15

4.1.8 Photo-elicitation

Participants were asked to take photographs of outdoor nature elements which were particularly meaningful to them when they took their work outside. For ease, participants were asked to use their mobile phones as this

was accessible to most participants. Participants were required to sign a photo-elicitation consent form which stated that no person must be captured within the photo, that the photo must be taken on site by the participant and the details of the storage of their data (appendix ix). Participants were also asked to forward any photos once a month (using Microsoft Teams) of specific nature elements which were meaningful to them when they worked outside.

Śliwa (2019) states that when participants take their own photographs this helps the participant to engage the researcher into their experience. Importantly, this is aligned to this study whereby the individual experience is being studied. Furthermore, Dunne et al. (2011, p.7) found that the use of photo-elicitation as data collection equates to "making meaning from photographs" which is another key component of this study, accounting for contextual details which may otherwise have been lost (Parker, 2009). This allowed the participants to feel empowered by their choices (Richard & Lahman, 2015) where the taking of photos was not overpowering (to the extent that the focus of the study was lost). Drew and Guillemin (2014) also state that those photographs taken by individuals allow a way in for us to understand how the participant sees a certain topic or phenomenon from their viewpoint. As a result, this helped to discount any researcher and participant power imbalance as the participants took the lead in choosing what to photograph.

Any photos taken by individual participants were then used within the final individual semi-structured interviews to become a conversational tool (Clark-Ibáñez, 2004). This was helpful towards nuanced subjective detail which is a key consideration within this study and is in line with the methodology of choice (IPA: Boden et al., 2018). Wilhoit (2017) adds that the photos allow for the participants to impart their knowledge and explain their choices as part of their lived experience. In this sense, the photographs become an aid for both the researcher to enquire through and the participant to relive and make sense of a moment. As such asking questions around the photographs may provide detail which is deeper than the photograph may initially allude to. Drew and Guillemin (2014) have emphasised that although the use of

photographs within a study is welcomed, they argue that care must be taken to ensure that the data which the photographs provide is meaningfully acknowledged within any findings. This is noted and where any photographs are used within the interviews this will be reported within the findings. Indeed, the elements of nature which were seen as the most helpful to the participants at certain moments (in relation to ART in particular) and the photographs will provide direct evidence in this regard.

What was found within this study was very different. Only one participant took photographs of the elements of nature important to them and where they had worked. For this participant the process of taking photos allowed them to add detail of where they had worked so that importantly they could show me. In this way they brought me into their experience as had been hoped. When the other participants were reminded about the inclusion of taking photographs within the study there was agreement that this was indeed a useful part of the study but as they weren't accessing the outdoor spaces much due to a variety of reasons (e.g., working from home, bus strikes, illness etc) taking photographs had become irrelevant for them.

This was a disappointment but also a learning opportunity in that the photograph taking was helpful for the participant who engaged the most with the study but that other factors can influence a study design and the ability to work around that and stay focused on the research question is the priority. This is not to say that the photo-elicitation element did not work it just simply did not make sense for most of the participants at this time and within their working set up.

As a reminder I have inserted a table (12) below showing the number of photographs received from participants as part of this study.

Table 12. Table of participants and the number of photographs received.

Participant	Number of photographs
Beverley	0
Mark	0
Esther	0
Samantha	0
Martha	0
Susan	23

4.1.9 Interviews

Participants were asked to sign an interview consent form (appendix viii) which contained details of the interviews and data storage. Two interviews took place with participants: the first was informal and the second semi-structured. Both interviews were audio-recorded to allow for transcription in full (a pre-requisite of using IPA). Audio-recording an interview also allows for any researcher to remain focused on what the participant is saying so that appropriate questions are asked in response to their answers without having to focus on taking notes as well as listening (Breakwell, 2012). Interviews took place either in person or over Microsoft Teams dependent on which space was deemed to be the most appropriate available (Saunders et al., 2016) at the timepoints, to fit in with the participants and what they felt most comfortable with (Easterby-Smith et al., 2018).

Kvale (2007) outlines quality criteria for asking questions within an interview. These include that the interviewer asks short questions to hopefully gain long answers, that the interviewer follows-up on answers with appropriate questions and checks-in with participants during the interview to maintain that their understanding is as the participant had meant. These quality criteria are helpful as a guide to maintaining a good interview and, it means that the interviewer is required to remain focused on the participant for the full duration of the interview. Indeed, once you add to this the need to respond to areas of interest in the moment, be empathetic, flexible, and not

ask leading questions; but then to ask leading questions to clarify a point, all the while being knowledgeable in your subject area whilst remaining authentic (Kvale, 2007), this is then a potentially exhaustive process. Measures such as drinking plenty of water and allowing gaps between interviews so thoughts could be collected meant that I did not become burned out as part of the process.

To recap: the first interview was conducted after three months and was an informal interview where it was hoped that this was an opportunity for the participants to let me know their experience of working outdoors at that point within the study. Collins (1998) states that informal interviews consist of a constant flux of negotiation between the researcher and the researched such that a checking in and testing the waters is adopted as the participants reflect on their reality. No specific pre-planned questions were asked by the researcher at this mid-point as it was felt that this would then have been seen as an intervention and may have led to an unwanted element of bias. Collins (1998) notes that in these moments it may be that participants wander off into new territory of understanding which may not have been reached had there been intervening questions raised.

The constant thread throughout the study was aimed to understand '*how do people who take their office work outside understand their experience of well-being and productivity'?* As such an important element of the informal interview was the voices and thoughts of the individual participants. The omission of an early semi-structured interview replaced by an informal interview therefore reduced researcher bias as much as possible and allowed participants to construct their own version of their experience before they birthed this with the researcher as part of the interview process (Silverman, 2010). According to Flick (2018) conducting too many interviews can lead to the building of an understanding which is a version of the reality not belonging to the individual. This was a relevant consideration where attempts were made to allow the participants to explain and understand their experience on their terms meaning the informal interview was participant-led, as opposed to researcher-led.

During the informal interviews I asked the four participants I interviewed at this stage (table 13) about the methods used to collect data as I was unsure if this was a barrier within the study. No-one had any negative comments to feedback on the methods which was both helpful and not, mainly because this left me with concerns over why two people were not replying to my requests for data.

Table 13. Table of informal interviews.

Participant	Informal interview took place
Beverley	Yes
Mark	Yes
Esther	No
Samantha	No
Martha	Yes
Susan	Yes

The second interviews took place at the end of the 6-month study and were a more comprehensive semi-structured interview. Semi-structured interviews are a useful way of following a backbone of questions which bends within the interviews depending on the weight of the answers given and therefore the direction which the interview then takes. I had pre-planned several questions (appendix xii) to act as this backbone and these were planned to best answer the research question. Van Manen (2015) advises that the researcher remains curious as to why the interview is taking place: a helpful reminder to the researcher to focus on the participant and the research question.

The topics covered within the final interview were around: the experience of working in an alternative outdoor workspace; what tasks were completed outdoor; what happened in the outdoor workspace that met any expectations (or not), and used the photos taken (for one participant), the individuals' audio-diary content, and the transcribed informal interview to remind participants such that they could re-visit a moment and take me with them as they did so. As such this answers Van Manen's (2015) suggestion of why

there may be a need for the interview to take place. Only by asking questions around these topics within this study can the lived experience of the phenomenon be revealed in great depth.

There is an element of spontaneity in being able to follow a train of thought within an interview especially where this may result in a chance of relevant phenomena being revealed. Indeed, this is relevant to this study as encouraging people to make sense of their experience may mean that a more heavily structured interview style may have curtailed this. Smith and Eatough (2012) describe this as the participants taking the lead with the interviewer as an accompanying soul alongside. Whilst this type of interviewing is by no means a prescriptive endeavour and requires flexibility and acute listening skills there is the need for the interviewer to be able to be focused on the phenomenon and act spontaneously in response to a participant response to maintain an element of structure. This element of structure and maintaining of focus is why semi-structured interviews were chosen as a final interview choice above informal or structured as this provided me with the best opportunity to understand the phenomenon as per the lived experience of the individual participants. As such this is within the IPA commitment to understand the participants lived experience of a phenomena.

Moustakas (1994, p.5) stated that during an interview and as a participant is encouraged to reflect on their experience of the phenomenon, they will begin the process of building a "textural description". This description will include all aspects of experiencing of the phenomenon (e.g., feelings, actions) and it is envisaged that from this full descriptive narrative that the essence of the phenomenon is gained. Again, this is an essential component of this study as we begin to understand a new way of working flexibly at the workplace. Thus, the interviews act to uncover the experiential elements of individuals so that the data collected is a clear representation of their behaviours, thoughts, and feelings to unearth a surprise (Smith, 2011). It is noted that whilst seeking to gain insights within the interviews they were not designed to be a therapy session (Rossetto, 2014) and as such a relevant list of available organisations to signpost participants to (appendix xiii) was available to

participants if the content of the interview had left them feeling exposed or vulnerable.

The table (14) below acts as a recap of which semi-structured interviews took place for this study.

Table 14. Table of semi-structured interviews.

Participant	Semi-structured interview took place
Beverley	Yes
Mark	Yes
Esther	No
Samantha	No
Martha	Yes
Susan	Yes

4.1.10 Data Analysis

The data from all four sources (participant audio diaries, participant photos, informal interviews, and semi-structured interviews) for each participant was analysed on an individual level initially before being then considered across the participants. IPA was used as the main analytical framework reflecting the purpose of this study to understand individual participants experience of well-being in relation to the phenomenon of taking their work outdoors.

According to Fade (2004) IPA is philosophically rooted within critical realism (CR: Bhaskar, 1989) and seeks to give explanation of an event (Saunders et al., 2016) through subjective meaning and experience of an object (nature) depending on the participants' background and previous experiences (Fade, 2004). This suggests that reality is experienced differently for everyone because we all access reality at different points. On the one hand, Michel (2012) explained that Martin Heidegger (phenomenologist) accepted an element of CR in that he believed that reality does exist outside of human understanding, but he also argued that for reality to exist outside of human understanding requires humans to experience Dasein (there being) as reality

does not exist without this. In this sense IPA leans towards the ideas of Heidegger (1962) and his novel combination of realism (reality lies outside of human understanding) and idealism (reality relies on human understanding). On the other hand, Moustakas (1994) considered this idealism and realism aspect and concluded this was negated when using phenomenology as we are investigating meaning from a place of no prior assumption. It appears then, that there is an element of contradiction within IPA. My personal understanding of IPA accepts these differing views and yet allows me to adopt a subjectivist stance which understands the lived experience as being unique to the individual.

Smith et al. (2011) support that when a study has a focus on participant meaning in a specific environment and asks how these people attempt to make sense of their responses then IPA is suitable. IPA is more appropriate for this research than more positivist frameworks such as content or template analysis because I was interested in individual sense-making rather than focusing on how often a word is used to describe a phenomenon. Furthermore, IPA is more appropriate within this study than a generic thematic analysis because IPA focuses on the individual and themes pertaining to that individual before considering the data set as a whole, whereas thematic analysis looks to create themes across the whole data set from the start. Indeed, the main consideration throughout this study is a focus on the individual where the study is idiographic and relates to the individual not the universal (Smith & Eatough, 2012). Initially, the subjectivist framework of discourse analysis was considered but as this primarily focuses on the language used to describe an experience it was felt that the focus on the meaning would be lost.

IPA is a good choice of data analysis as the participant is the expert in their own experience of a phenomenon and within IPA their voices are heard and encouraged as they make sense of and verbalise their experience. Indeed, at the seat of IPA is the participant reflecting on their experience and as they do this how they make sense of this to answer the research question '*how do people who take their office work outside understand their experience of well-being and productivity'?*

4.1.11 IPA Analysis Process

Following the outline of using IPA as proposed by Kempster and Cope (2010) towards an ideographic process of inductive enquiry I set about the complexities of making sense of what the participants had said (Smith et al., 2011) within their audio-diaries and the individual interviews. This process included: an intimate familiarisation with the voices and words of the participants; the drawing out of explanatory comments which were descriptive, linguistic, or conceptual (Smith et al., 2011); and developing themes from these for individuals. This meant that the lived experience of each participant was upheld throughout the process which is an essential element of IPA (Smith et al., 2011). To do this I immersed myself in the data (before any transcription took place) by listening to the recordings of both the audio diaries and the interviews fully at least twice. This repeated listening meant that I heard the words being said by each participant so that when the full transcription was completed, I could still hear the voice of the participant in the written words. As such the words still belonged to the participant and it was their experience which was genuinely articulated and understood. The interviews were transcribed by me into individual word documents before being inserted into a table (e.g., table 15) with both documents being held on the university Office 365 one-drive. Once transcribed in full the transcriptions were read and re-read alongside the audio interview to allow for depth of immersion offering insights and further observations of the participants attempting to make sense of their experience (Silverman, 2010).

Table 15. First stage of IPA analysis. Excerpt of interview with Martha

	Transcribed audio-diary/interview(s)	
	"Er there's so many different things really it's just vital I think to the life really you know as a human being I feel that being I don't like being inside I don't really like living in a city or working in a city it's not ideal but it's a compromise because I'm close to my family and stuff you know erm but I it's just so nice well it's nice to look at, it's nice to be in and obviously it's massively important to well to everything really on earth erm and how do I feel well it think it's grounding and you just feel I mean personally I'm just looking at some trees out the window. I just feel like inspired by it also just sort of calm it's calming"	

Each participant was coded independently of the other participants, and it was this part of the process which helped to prevent myself from jumping to conclusions or creating themes too early. In this way I was not seeking to gain clarity in themes across participants initially, and in doing so recognised that the potential for an element of surprise remained until the final interviews had been analysed (Smith, 2004). My counselling training and experience was beneficial so that each participant was heard in full without this influencing how the next participant was heard. This is of course troublesome

in practice. Essentially, this was originally referred to as bracketing (Husserl, 1965) however as I have previously described once something is in our area of knowing it is very difficult to unknow this and maybe the best I could do at this stage was acknowledge what was known, reflect on this within the reflexive diary and hold that individuals arrive at the phenomena from their own pre-existing experiences. It was then up to me to accept individuals on their own terms.

Initial coding in the exploratory comments' column (table 16) took the form of language, descriptive, and conceptual coding and is an open "free textual analysis" (Smith et al., 2011, p.83) which was coded manually. This is not a step-by-step approach and Smith et al. (2011) are keen to stress that this is not the only way to exploratory code, citing underlining text and being free with the data as alternatives. However, as a relatively new IPA researcher I chose the three-component exploratory coding example to help to guide me through the data. This stage of data analysis is again (as with the initial reading through of the transcriptions), not about speeding through, but coding is implied as a thorough examination of each word said so that commentary can be made.

Language coding (italicized text in the above figure – exploratory column) refers to how a participant presents their experience through the words they use. Smith et al. (2011) refer to the use of metaphors as notable points of interest within language use as well as intonation, silences and how much a participant may repeat themselves. Descriptive coding (regular text in the above figure – exploratory column) relates to the participants understanding of individual importance within their world. These descriptions may be a single word used or a whole sentence. The important aspect is noting these as they are the individual participant's way of describing their experience. It may be that there is an emotional response which accompanies a description as for some people this may be their first time at describing their experience. This then also brings together the use of language and participant conceptual view. Conceptual coding (underlined text in the above figure – exploratory column) involves interrogating what is being said and involves a lot of questions being asked. Sometimes, as Smith et al. (2011) explain

these questions might refer to the self (researcher) so that a degree of understanding can be obtained which can then help ask relevant questions of the data in a double hermeneutic.

Table 16. Second stage of IPA analysis. Excerpt of interview with Martha

	Transcribed audio-diary	Exploratory comments (language, descriptive, conceptual)
	"Er there's so many different things really it's just vital I think to the life really you know as a human being I feel that being I don't like being inside I don't really like living in a city or working in a city it's not ideal but it's a compromise because I'm close to my family and stuff you know erm but I it's just so nice well it's nice to look at, it's nice to be in and obviously it's massively important to well to everything really on earth erm and how do I feel well it think it's grounding and you just feel I mean personally I'm just looking at some trees out the window. I just feel like inspired by it also just sort of calm it's calming"	*Nature is vital* – <u>it has vitality – is alive</u> Nature is a significant cog in our existence <u>Senses are stimulated in the outdoors</u> There is a sense of awe as the importance of nature is declared. <u>In the moment</u> *Inspiring and calming*

This element of coding requires tenacity to look beyond what someone is saying, applying an interpretative stance (providing that this remains within the realms of the participant's voice) and not becoming a projection of my

making sense of the phenomenon instead of making sense of the participant as they make sense of the phenomenon.

Once the exploratory comments are completed after an iterative and thorough review of the data which may comprise of many visits to the data this is followed by finding any emergent themes for the individual (table 17).

Table 17. Third stage of IPA analysis. Excerpt of interview with Martha.

Emergent themes	Transcribed audio-diary/interview	Exploratory comments
Nature is alive Preference for being outside Senses activated Nature is vital for everything In the moment Nature element – trees Calming	"Er there's so many different things really it's just vital I think to the life really you know as a human being I feel that being I don't like being inside I don't really like living in a city or working in a city it's not ideal but it's a compromise because I'm close to my family and stuff you know erm but I it's just so nice well it's nice to look at, it's nice to be in and obviously it's massively important to well to everything really on earth erm and how do I feel well it think it's grounding and you just feel I mean personally I'm just looking at some trees out the window. I just feel like inspired by it also just sort of calm it's calming"	*Nature is vital* – it has vitality – is alive Nature is a significant cog in our existence Senses are stimulated in the outdoors There is a sense of awe as the importance of nature is declared. In the moment *Inspiring and calming*

Language coding (italicized text in the above figure – exploratory column) refers to how a participant presents their experience through the words they use. Smith et al. (2011) refer to the use of metaphors as notable points of

interest within language use as well as intonation, silences and how much a participant may repeat themselves. Descriptive coding (regular text in the above figure – exploratory column) relates to the participants understanding of individual importance within their world. These descriptions may be a single word used or a whole sentence. The important aspect is noting these as they are the individual participant's way of describing their experience. It may be that there is an emotional response which accompanies a description as for some people this may be their first time at describing their experience. This then also brings together the use of language and participant conceptual view. Conceptual coding (underlined text in the above figure – exploratory column) involves interrogating what is being said and involves a lot of questions being asked. Sometimes, as Smith et al. (2011) explain these questions might refer to the self (researcher) so that a degree of understanding can be obtained which can then help ask relevant questions of the data in a double hermeneutic. This element of coding requires tenacity to look beyond what someone is saying, applying an interpretative stance (providing that this remains within the realms of the participant's voice) and not becoming a projection of my making sense of the phenomenon instead of making sense of the participant as they make sense of the phenomenon.

This third stage was conducted with clarity and transparency so that the process of theme formation is clear, and one participant is completed in full before moving onto the next participant. As such I considered that it may have been helpful to use NVivo software to develop the data from exploratory comments into emergent themes but as I understood that this was reminiscent of thematic analysis, I took the decision based on quality, rigour and transparency as outlined by Tracy (2010) that I appropriately immersed myself in the data as directed with IPA (Smith et al., 2011) and manually analysed the themes for each participant as shown in the above table.

Then it was time to start the process again with the next participant, and the next and so on. Only when the explanatory comments and developing themes had been satisfied for the individual cases, were across participant

themes developed and associations and patterns identified. The important aspect as the data was moved through was to honour the individual behind each of the transcripts so that their lived experience was heard in full. It is acknowledged that switching off or bracketing that which I already know at this point becomes difficult as previously discussed. However, Smith et al. (2011) are confident that when following the process of conducting IPA that the process allows one to become so immersed in the data this allows themes to emerge organically.

At this point more widely seeking connections of these initial individual emergent themes took place. Themes from the individual data were written onto post-it notes (appendix xiv). This allowed for the creation of individual tables of themes for each of the participants using the participant number/pseudonym, data type, line number and words/excerpts of the text (e.g., appendix xv). This abstraction process allowed for patterns to be sought and developed into superordinate themes. Furthermore, the creation of the individual tables allowed me to put together a list of the superordinate themes (appendix xvi) showing recurrence of themes within the cohort by way of a master table of themes (appendix xvii). Smith et al. (2011) offer a note of caution at this stage and stress that just because a theme comes up a lot this is not necessarily the most important theme in relation to the phenomenon under study. This would have been a simple mistake to make at this stage and may have discounted a theme which had more relevance. Upholding the individual's data was aimed at minimising this risk by understanding how themes were connected and not, thus allowing for superordinate themes of relevance in relation to the research question and existing theory (e.g., ART) to emerge. The super-ordinate themes being management endorsement, workspace and affordances, tasks, nature, senses, well-being, and mindfulness.

Interpretation of what individuals are recounting is key when using IPA and it is acknowledged that experience allows a researcher to ask more questions of the data as they grow more confident with the process. However, it is also acknowledged that for a reader to understand how the findings have been reached a comprehensive detailed account is required and it is through this

which it was hoped that rigour and dependability of myself and the research was made transparently. Yardley (2000, p.219) sets out:

> "the characteristics of good (qualitative) research these being: sensitivity to context (e.g., ethics); commitment and rigour (e.g., competency in methods used); transparency and coherence (e.g., reflexivity); and impact and importance (e.g., have a theoretical or practical contribution)".

Indeed, these characteristics whilst not seen as prescriptive do offer a way of maintaining a qualitative research study which shows both depth of understanding and validity and which have been applied throughout this study.

4.1.12 Ethical Review

Participant and author due consideration was upheld throughout the study period and beyond in ensuring that the data continued to remain anonymous. Names of the participants were coded by me to uphold anonymity and pseudonyms were used throughout the Study two chapters. Confidentiality could not be granted within this study as excerpts from the interviews and audio-diaries were used within the thesis and any linked research papers, but where these were used, they were edited to not directly lead to any participant. Participants' names were known by the researcher so that as each new piece of data arrived (audio-diaries, photos) this was then added to the coded participant's file within Office 365 by the researcher. In this way the data was attributed to each participant (by way of their code) to build up a story. Furthermore, holding data this way meant that if a participant wished to withdraw from the study this was straightforward provided this was within the specified time limit of one month from the commencement of the study.

4.2 Results and interpretations

4.2.1 Preliminary analysis

In this chapter, I will discuss and interpret the results of this study, and the participants experiences of taking their office work outdoors. The results show what the participants have experienced when taking their office work outside to answer RQ2 of this study ('*how do people who take their office work outside understand their experience of well-being and productivity*'?) and will help to develop the limited understanding we currently have of this phenomenon.

The following sections report the results within the super-ordinate themes using participant quotes where appropriate and with interpretative comments to guide the reader. I continue with the pseudonyms (rather than a number) for each of the participants in line with the methods for this study. To reiterate this was out of respect and for the purposes of bringing their experiences to life within the context of this study. The super-ordinate themes identified were management endorsement, workspace and affordances, tasks, nature, senses, well-being, and mindfulness.

I begin by exploring the participants negative and positive experiences of this phenomenon and how this affected their ability to work outside based on perceived endorsement. I then explore how participants adapted to the outside space and the affordances encountered within the space, before exploring the tasks that participants chose to do and why. Following this, I consider the elements of nature which were important to the participants, the sensory experiences of being outside in nature, and the positive and negative experiences of well-being. Lastly, I consider participants' experiences of mindfulness and an appreciation of being in the moment.

4.2.2 Management endorsement

Previous research in Sweden exploring people taking their work outdoors highlighted the importance of management endorsement of taking work outdoors in relation to workforce feelings of guilt (Petersson Troije et al., 2021). For one of the participants in this study management endorsement

had been given for them to take work outside; however, during both of their interviews there appeared to be an internal conflict taking place as the desire to be outside in nature was constrained by feelings of skiving when they took their work outside. This appeared to hang negatively with regards to their overall experience and subsequent feelings of guilt. What was interesting was how, in their interviews, the participant was adamant about how much they liked and preferred to be outdoors but that peppered throughout the interviews were negative reasons as to why the outdoors was not suitable for working in, (e.g., "there were a lot people walking past so it was kind of that was a bit distracting", and "I think the benefits are really big it's just the logistics of sorting it out are quite difficult" – Martha). At the end of their first interview, the noise of lots of reasons for why taking work outside was difficult was swept aside and the overarching reason for hesitancy over use of the outdoor space was made "… it is pleasant when you're outside and because you are working you know you're not not working I just don't know where that feeling of it being legitimised comes from…" -Martha. This was an important element of their lived experience where guilt and a felt lack of legitimacy then made sense and began to explain and to put into context the other barriers which they had talked about. Historical skiving claims (which the participant was aware of) aimed at people who do not work in the office, "working from home was very much seen as a skive you know you had to be there" – Martha, had led to them projecting onto themselves what they thought people might feel about them as they took their work outside. They had not been told that taking work outside was unacceptable – they had inflicted this bias internally causing them to question the legitimacy of taking their work outside thus creating a barrier.

Another participant was keen to talk positively about the support that they had received from their manager, "…*[they're]* brilliant, *[they're]* really good she's all for us doing whatever we need to do that helps us that keeps us going…" – Susan. This then manifesting as the outdoors becoming a viable alternative workspace. Not only that, as well as the relationship between the space being viable and management endorsement, the participant stated that their work productivity levels did not fall, "I don't need to feel guilty about

leaving my desk and going and working outside because I am being productive if not more productive than I would be if I stayed inside" – Susan. Thus, the experience for this participant when taking their work outside is not subject to a further stressor be this self-imposed or management led.

For one participant their experience differed which may be in part explained by them being in a managerial role. Although their role changed mid-study and they had mostly been working from home, when they did return to working at the workplace with three new staff, they fully endorsed going outside for walking and talking work opportunities, "We still have work chat it's not that you're actively trying not to work but just that in a different frame of mind I suppose" – Beverley. A point which they stressed that I understood was that although they were walking outdoors, they were still working. This seemed to represent an unease that manifested in needing to say that what they were doing was legitimate and may have been related to being in a new managerial position. The participant was keen to state that they were happy to endorse their staff taking their work outside as and when they needed to, and that no permission was needed citing that taking work conversations outside were beneficial for them and their staff, "… it gives you a chance to reflect when you're not staring at words or pictures, and you can just sort of, it gives you space for your thoughts" – Beverley. It seems then, that the positive aspects of walking and talking are helpful and noted by Beverley where the space element of outdoors (outdoors referred to as 'it' within the above quote) could be aiding the headspace they describe. This sense of the outdoor space being reflected onto how people then feel (headspace) crosses over two further sub-sections (workspace and affordances, sub-section 4.2.3, p.90 and well-being, sub-section 4.2.7 page 101) which I will re-visit further within this chapter.

4.2.3 Workspace and Affordances

Any workspace is subject to what work people afford that they can complete in that space. For instance, in activity-based flexible office space (AF-o or ABW) an informal café area may support collaborative tasks to take place due to the affordances of plentiful seating and round tables. To help

legitimise the use of outdoor space to work in, one of the participants considered the usefulness of a defined outdoor workspace on campus, "… the main barrier has been trying to… know where I'm going, I think what would make it so much easier is if there was an outdoor working space where you could book a seat you know because then you could put it in your calendar…" – Martha. The interesting element to this statement is putting the booking into their work calendar appears to be a development of their management endorsement concerns to demonstrate that they are working and not skiving.

The participant also expressed a view on what could be within the space, "… if there was like a docking station… so you're not having to take your power out… some shade as well… it's more having a proper desk like because I just worked like on a picnic bench and it's not ideal really" – Martha. Here, the participant is listing affordances which would allow them to work outside. However, I interpreted these data tentatively as this person had already appeared to be placing barriers against working outside which were more likely to be in relation to legitimacy. The participant continued and was clear about what taking their work outside would mean for them, "Erm my main reason would be to be outside really and to fresh air and erm around plants yeah around plants and trees and things like that you know and not just couped up in an office", but at the moment the affordances which they perceive to be important and which will mean that the space is viable to work in are in their experience, missing.

Nonetheless, this issue of affordances also emerged in my reflexive journal. This was written after one session of working outdoors on campus, "one of the things that keeps coming up for people is that they are being asked to work outdoors, but this can be troublesome without a roof for shade/glare/weather concerns. The other important consideration is power points. My laptop will no longer work without being plugged in…this means that unless I have access to power, I cannot use my laptop outside. There may be many other people who are afflicted by the same problem, and this can then be a barrier to them working outdoors – I know it is for me. For now, I continue to work outside by reading papers and writing". I did not need

management endorsement and so was able to work around the affordances problems freely changing the tasks which I was doing outside to match what the space afforded me.

It was also found that the affordances which participants preferred could change. This was based on both well-being and task variety. This meant that the idea of large defined working areas outside would not work for them, because this would remove the element of location autonomy (e.g., Spivack and Milosevic, 2018) about where the best place was for them to work, "if it was one area… I would then feel oh I've got to go there and it would become almost a chore in that oh it's just another workspace I might as well just go sit and work in *[an indoor library space]* or go and choose a desk in *[a campus building]*…, I think if we had pods around where you could just go and just think oh I just fancy and going looking at trees where is there one and… if we know where they all are… or I'm not really fussed where I go today so I could end up outside… but I think for me personally… choosing somewhere rather than having one specific space would be more beneficial" – Susan.

Thus, the act of choosing a space outdoors has relevance for this participant through a sense of awareness of their needs within one moment (which will be discussed later in this chapter - mindfulness sub-section 4.2.8, p.104). They also mention a particular element of nature which again we will discuss later in the chapter (nature sub-section 4.2.5, p.96). However, the emphasis on being able to choose where to carry out their work based on the space available and what is in the space (affordances) meant a sense of freedom for this participant, "… I am ok with structure and I will follow rules but I like the freedom of being able to do what you want being able to do what you need being able to seek out what you need and I think that's that's been a big part of it it's just that the freedom to choose where I want to be where I want to sit in that moment" – Susan. The participant continues, "… it can sometimes feel a little bit ominous… pushing down just like closing in… with the work environment, the sterileness of the work environment" – Susan. This sense of freedom compared to the sense of feeling closed in when indoors sounds as if the walls of the office make the participant feel swamped or claustrophobic and that only by going outside is that pressure

released. The importance of space is defined within this statement as the space where the participant feels that their needs are met. This participant uses their self-awareness continually to make considered choices of where to work and sees this as an opportunity to not be constrained by the normalisation of working indoors. In saying they will follow rules but that they also like freedom suggests that they also like to make their own rules. Perhaps, taking their work outdoors relates to outdoor space being less structured than indoor space and thus less constrained by rules.

Next, the attention turns to the task which the outside space affords that the participants can do there and how these tasks may separately and together influence their well-being.

4.2.4 Tasks

Understanding the tasks which participants took outdoors was important within this study as I sought to learn more about the lived experience of both well-being and productivity. Tasks, or more specifically the type of tasks which the participants felt they could or could not do outdoors was mentioned by all the participants. Indeed, I have alluded to this happening for myself in terms of changing my task outside to fit with the affordances of the space (sub-section 4.2.3 page 90).

For one of the participants the lack of being able to use technology effectively was seen as a further barrier to use of the space in relation to task achievement, "…if … you could plug in so you're not having to take your power out … and maybe some shade as well because I did notice when I was outside you know it's hard to see your laptop screen" – Martha. These lack of affordances (e.g., desks, tables, power points, shade) led some of the participants to believe that many of their tasks were just not suited to working outdoors. For instance, "my job is primarily computer based… and I find it difficult to work from a laptop I need two monitors to do my job properly and you just can't do that in outside sort of spontaneous setting" – Beverley. Whilst technology issues were seen as a huge hurdle in the chance to take tasks outside by this participant in their first interview, over time (as reported in their second interview) work conversations taken outside had become

beneficial, "So, I now line manage new people and they quite often like go for a five minute walk around the block just to get a bit of fresh air and I try and do that too when I'm able to join them and I suppose it's moments like that you think even if it's a quick sort of a ten minuter, it's nice to get out of the stuffy office and away from the screen for sure" – Beverley. This excerpt suggests that work conversations were taking place outdoors without technology and where, as a result there is a sense that this feels like a break outdoors which is also beneficial for well-being, (discussed more in the well-being sub-section 4.2.7, p.101).

One further participant was in support of the lack of technology use outdoors, and they found other tasks to complete which allowed a break from technology. For instance, "the emails coming in … maybe I can run this analysis while I'm reading and in the end it distracts you… going outside it implies getting away from the computer to work and so yeah so it doesn't make sense to put the two together" – Mark. This implies that when technology is separated from the task taken outside this can lead to a focus on tasks which is not enjoyed when indoors surrounded by technology (e.g., reading a paper report).

In another interview I questioned whether changing to another indoors space and turning off the laptop or phone would create the same effect as changing to an outdoor space and turning off the laptop or phone. This was discounted as the element which would be missing indoors is the impact that nature outdoors has on the senses, "the *[school on campus]* have got the grass room… but then I'm hankering after the external… I'm wanting the feel of the grass between the toes and the wind on your face… not being confined to the office" – Susan. This gives our first insight into the importance of senses in an outdoor space which we will re-visit later in this chapter (senses sub-section 4.2.6, p.99).

Interestingly, some participants also found that their productivity increased mainly due to them being able to focus on just one task fully, "It's… a nice break to get into this environment… it helps me to focus on reading because I don't have the computer sat in front of me…" – Mark. Another participant

adding, "being away from screens sort of allowing your eyes to rest" - Beverley. This sounds like the act of going outdoors to work and away from large amounts of technology takes away the burden of a task needing to be done alongside other tasks (or being distracted by other tasks) and replacing it with a focus on a single chosen task. This may be linked to autonomy and preference related to both the task and the space. Of note, it is not the task which has changed it is the space and the affordances within the space which are different and which in turn allows for a different way of feeling and working.

Moreover, it was found by some participants that they could plan their tasks for taking outside and as a result use this time outside effectively. One participant saved up reading tasks, "I think it's very particular for reading" – Mark, one took work conversations outdoors "We still have work chat it's not that you're actively trying not to work but just that in a different frame of mind I suppose" – Beverley, and one participant tried to plan a meeting outdoors, "I did try and organise a meeting outside, but the academic didn't want to do it" – Martha. Interestingly, this participant tried to work outdoors using a meeting as a legitimate reason but encountered another setback which seemed to leave them lacking in determination to carry on trying to work outdoors. For this participant it seemed that each problem encountered was a further perceived legitimacy problem.

One participant was keen to state how working outside on tasks which they could carry out alone also helped them to focus on one task at a time. Essentially this was because they worked in a busy office and found that there was a requirement to continually interact with colleagues (which was felt to be a distraction). When outdoors they enjoyed the tranquillity of being in nature and amongst people, but the difference was that even when there were a lot of people in the outdoor space, they did not have to interact with them. This meant that they could work more productively than indoors, "It was quite busy there were people milling about … but I managed to get everything done that I wanted to get done erm so now I feel like I can face the rest of the afternoon inside I feel a lot better a lot calmer" – Susan; they continued, "the beauty is I'll get ignored" – Susan. In addition to the

accomplishment of getting tasks done outside was the mood lifting benefits, "I am being productive if not more productive than… if I stayed inside because I maybe allow the grumpiness… to fester… if I can go outside, it kind of lifts" – Susan. It appears that there are positive well-being and productivity advantages for this participant in taking their work outside. The reason for going outside may initially be due to avoiding being disturbed by other people but it is equally about trying to get tasks completed which also has positive well-being implications. Furthermore, their enjoyment at being ignored implies a sense of social overload which has a negative effect on their task accomplishment and the type of task they can do.

The photographs which Susan supplied as part of her diaries were helpful in showing the types of areas which were beneficial for her to work in. The photos showed many different areas containing different elements of nature and which Susan explained were based on her needs when she took work outside. The task which she had taken outside aided her choice of where to work and so there appeared to be a number of factors working together for her in her choice of where to work (e.g., well-being needs sub-section 4.2.7, p.101, type of task, and element of nature sub-section 4.2.5, p.96). The photos will not be included within the thesis as they were intended to aid understanding within the study and to act as a reminder to participants within the interviews only.

4.2.5 Nature

This study explored people's lived experience when they took their work outdoors and what this meant for them. As such it was useful to understand what it was about nature that was important to people and to start to think about why nature can be beneficial to people as they work. Using the interviews, audio-diaries, and photos it was found that the participants discussed the elements of nature which were important to them together with an overview of their felt connection to nature. This then allowed for follow up questions to be asked in relation to why, how and in what way certain elements were of felt importance and their experience around this.

Most notably it was found that all the participants were drawn to being near elements of nature unconsciously and then through the interviews connecting the importance of memory in this process. For instance, one participant recollected time outside as a child, "… the idea is that when you go to the park you sit on the grass and also the weather is much nicer and traditionally not that wet so I think for me the idea of going to the park is more sitting on the grass" – reflected in the present as "I think it is just nice to go out and to sit on the grass or be amongst the trees"– Mark. Here, the participant reflects on their childhood memories of how parks and grass were important then. What is interesting is that the participant continues to feel that sitting on the grass in parks remains important now, particularly when they take work tasks (reading) outdoors. This seems like a moment of connection with a particular element of nature (e.g., grass) and sense memories (e.g., the feel of the grass).

A second participant felt that outdoor areas at the workplace reminded them of home, "I have a section of my garden actually which does look like this that is overgrown but maybe it is maybe that's what's drawing me to the outside" – Susan and another participant added "I probably only notice that because I like gardening and I like a nice-tended flower bed like erm in my own garden" – Beverley. What was interesting was that as participants made the connection to their memories and of time spent in nature, they all smiled seemingly enjoying the positive affect again as they relived the moment, but they also took me with them into their memories as they re-lived them as had been hoped within the methods chapter. This helped me to gain a deeper level of understanding of their experience of taking their work outdoors and what the experience meant for them.

There were four elements of nature which were mentioned by all of the participants, namely: air; grass; leaves and sun. We will firstly consider air as this was divided into the two elements of air to breathe and air to feel on the skin, both of which were considered important to the participants. This was mentioned by one participant in their audio-diary and in an interview – "it's a nice gentle breeze" and, "just to get a bit of fresh air" and, "out of the stuffy office" – Beverley. They describe the sense of touch on the skin of the

breeze and the need to breathe with preference for neither but importance for both.

The second element was grass mentioned here in terms of the benefits, "I like to be around trees and grass… I think the benefits are really big" – Martha. A second participant added, "I'm hankering after the external… I'm wanting the feel of the grass between the toes and the wind on your face" – Susan, (this is covered further in the senses sub-section 4.2.6, p.99). For the most part grass is green (unless it is either covered by frost or snow or decimated by a hot summer) and as well as the feel of grass the colour green was a need for some, "it's green there has to be something…green… that's got to be there" – Susan. This is not to say that the colour green is not available indoors, perhaps the associated feeling is only available outdoors because of the links to senses and memories. However, colour importance has been mentioned in the workspace literature where the colour green was found to be important for maximum brain activity (Qin et al., 2014).

Leaves were also mentioned by all the participants such as, "it's so lovely here I'm sitting just looking at trees and listening to the leaves rustling" – Susan. This could be indicative of two things. Firstly, that leaves provide good levels of sense activation like audio, visual, scent, and touch which is more intense than is experienced indoors (covered in the senses sub-section 4.2.6, p.99). Secondly, this could relate to a sense of awe (I discuss awe in the well-being sub-section 4.2.7, p.101) as one participant (Martha) said, "you know its fine" and "the buds for next year are there already"; suggesting that nature is adept at transforming throughout the year.

The sun was the final element of nature mentioned by all the participants; "the sun is shining and it's really lovely" – Beverley. The sun was also a driver for participants to take their work outdoors. For instance, "If I can get the sun's warmth it's really important to me" – Martha, "I wanted to come out into the warm into the sun" – Susan, and "if the stars align and you have to read something and it's sunny outside sure… then you can do this outside" - Mark. In these instances, the important element is that the sun is the provider of a sensory feeling or of an anticipated feeling to come.

In terms of the connection to nature (including individual elements of nature) this seemed to stem from sensorial memories but there were also instances of the connection as a felt sense of shared life experience by humans and nature "it's just vital I think to the life really" - Martha "…it's great it's life it's lovely…" – Susan.

4.2.6 Senses

Senses are activated when in contact with certain elements of nature and can create behavioural action as a result; for instance, the sense of smell of fresh air is oftentimes not experiences indoors. One participant felt that this was connected to a lack of people opening windows, "… I think people don't ventilate rooms enough … and people close their windows for six months" – Mark. Another participant added "…my main reason would be to be outside really and to breathe fresh air... and not just couped up in an office" – Martha.

One participant summed up how the sense of smell associated with air outdoors provided them an opportunity to take a moment (mindfulness sub-section 4.2.8, p.104), "probably it's the smells…, the sensation that sort of like ooh you know like maybe they've cut the grass… this is this is nice lets savour this for a second then think right where we gonna go how we gonna do this it's that it's just the difference I think" – Susan; these descriptions offering a glimpse at the importance of the senses as they step outdoors to work.

It may also be that there is a certain lack of sense activation indoors, "it just feels a bit lifeless really indoors", they continue "yeah I guess I'm more keen to get out of a pretty grey office and get outside because erm the day to day surroundings are pretty uninspiring" – Martha; Susan added, "just getting away from the artificialness of being inside". These descriptions sit in contrast to the ever-changing outdoor environment and demonstrate the strength of feeling that a felt lack of sense activation within indoor spaces can mean to people.

The description of indoor office space as both "lifeless" and "uninspiring" could also be indicative of the lack of movement, where outdoor there can be

a flow of clouds across the sky or the gentle swaying of tree branches or plants as they waft in the breeze creating constant change. For instance, "… it's just alive you know it's not hard concrete, it's living really", and "I like the kind of sturdiness of a tree… it kind of bends and waves around and stuff but… it's stable as well" – Martha. As this person reflects on their experience of time spent in nature, they not only draw on the visual sense, but they take the time to consider the broader sense of life for the tree which relates to a sense of awe (covered in the well-being sub-section 4.2.7, p.101). There is a feeling of admiration for trees from this participant where it seems that the trees are perhaps representative of how they want to feel themselves.

It appears that the sensory experience felt from elements of nature can be seen as a need being met which then allows the participants to feel a sense of ease and to be inspired. For example, for one participant the feel of rain on their skin was a truly uplifting moment, "… I was letting myself get wet it was so nice ….and I'm like… I'm fine I'm just getting wet" and, "… my hair was wet... and it's great" – Susan. Another participant stating, "even on a bad day well you know if it's raining or whatever I think there's still plenty to feel good about outdoors" - Beverley. In addition, in my reflexive journal I commented, "I worked outside recently when it was raining as I managed to get myself under an umbrella near to the university union. It was actually really lovely, it wasn't cold, I was dry, and the sounds and the feel of the air was amazing – kind of makes you feel alive when other environments just suck you dry". There is an implied suggestion here that nature offers a sensory experience which is only available outside of the normalised indoor working environment and that the sensations felt are the pre-cursor to the positive affect (well-being) that follows.

The auditory sense experienced in nature is different to the auditory experience inside, "…it doesn't feel as sort of intense as having the same conversation in the office and you're aware of say birdsong… that break from office space to non-office space is quite important" – Beverley. It maybe that hearing nature outside is perhaps once again linked to memories of time spent outside which helps some people to feel positive well-being.

4.2.7 Well-being

Participants recounted experiences of both positive and negative well-being. One participant described the outdoor environment (e.g., it is calm) and mirrored the feeling as hedonistic well-being (e.g., I am calm) - "I just feel like inspired by it also just sort of calm it's calming" Martha. Not only that but the knowledge that positive well-being can be experienced by going outside could become an expectation "especially in winter because it can be quite… depressing… the lack of light in winter I'll always go out and try and just get that feeling" – Martha. Furthermore, it could be that the hedonistic well-being is a moment which then becomes associated with or is aligned with memories of elements of nature outdoors.

Participants talked about the positive feelings associated with nature and how their lived experience within nature is perceived, "I think to make the rest of the day doable I think it's the calmness that I get… from… working outside and… to be outside naturally, I am more of a nature person but… it kind of seeps into me and it just… makes me feel calmer it makes me feel more like I'm set up for the day now and yeah I can do this and gives me the boost and the lift that I sometimes need yeah it's been… a really good experience for me" (Susan); "Yeah and just release and… relief just seems to wash over me…" and "…like a shower…" (Martha). These quotes talk about an immersive experience where their well-being experience in nature is described as becoming part of them through a felt connection to nature ("… I think mentally it's helping, being an outdoor person anyway… I would sit outside every day if I could…", Susan), combined with an awareness that being outside in nature aids well-being ("I need to… make my mindset better... it's as if it becomes unhealthy whilst I'm inside as if it's like I don't want to be here I don't want to do this... I can't concentrate", Susan). It may be that over time there is an expectation that spending time outside in nature is beneficial for well-being such that no matter the reason for going outside the well-being benefit will be experienced.

In this last quote there is a link between the experience of taking work outside for well-being and the relationship to being able to focus on work also

which then continued as one participant returned indoors "it just makes you smile and then you take that in back in" – Martha. In addition, for one participant this feeling was such that they felt they would be able to get through their work better than before, "despite it being grey and cold and a little bit drizzly I actually really enjoyed being out there I feel a lot better… and ready to continue" – Susan. Not only were there positive well-being benefits for this participant together with a motivation to continue working they also felt that they would be a better colleague to be around, "I think as well it's making me a better colleague for my colleagues at work I'm more receptive" - Susan. Thus, taking work outside can aid well-being for the one person, but also that colleagues can vicariously gain benefit by way of Susan's renewed commitment to working and to better social interaction.

Eudaimonic well-being (the thinking element) was referred to within the interview and audio diary data through the use of words linked to awe determined mostly through references to a sense of freedom/vastness experienced. The participants described being outside as meaning they were free but when asked for clarification if this was to do with a lack of walls outside one participant replied that "Yeah it could be lack of walls… but yeah I think for me it's more about the greenery and the trees and the leaves and the grass and that kind of stuff more than a lack of walls" – Mark. From this quote we get a sense that the freedom sense comes from the vastness (sense of awe) of the greenery (linked to elements of nature sub-section 4.2.5, p.96). This could be that the participant can see and feel (linked to senses sub-section 4.2.6, p.99) the dynamic sense of nature as they are immersed within it. There were also experiences of confinement and containment indoors, "the actual being out, being out and about and out in the not not being confined to the office" – Susan, and "I don't like being contained like that you know what I mean it's just nicer a nice atmosphere, nicer to be outside" – Martha such that being outside offers a sense of positive well-being based on feeling free and the feeling of space. It may also be that the amount of time spent indoors far outweighs time spent outdoors and this imbalance is creating a need which leads to the use of words such

as contained and confined which suggests being held against their will – a will to be outdoors perhaps.

Another of the participants described being immersed in nature as, "... it's just so nice… nice to look at… nice to be in and obviously it's massively important to well to everything really on earth erm and how do I feel well it think it's grounding", and, "it just does what it does and it exists it's like a you know world that exists alongside humans" – Martha. There is an interesting turn to what this participant is discussing here as they have moved from hedonistic well-being ("it's nice") and moved into eudaimonic well-being ("massively important, grounding, world that exists alongside humans") where both types of well-being are important in the moment. In another mix of hedonistic and eudaimonic well-being this participant said, "that to me was heaven… I love to be outside" and, "maybe looking back maybe it wasn't maybe it wasn't it just made me feel I don't know happy at sort of at peace with myself" – Susan.

What seems to be happening is that as participants considered their lived experience of taking work outdoors, they took time to consider not only what was happening for them hedonistically (nice) but also considered the wider notion of nature (grounding – linked to the mindfulness sub-section 4.2.8, p.104) as a vital element of our living well (heaven). This suggests that nature can be a remedy to the negative feelings of being constrained in a normalised indoor office environment and how feeling positively well as a result of being immersed in nature is simultaneously both a hedonistic and eudaimonic experience.

Negative well-being was referred to in terms of feeling uncomfortable about taking work outside which is directly linked to the first sub-section within this chapter of management endorsement (sub-section 4.2.2, p.88). One participant expressed "if there was a designated area and a book in slot, I'd feel more comfortable because it's like I've got permission to do it" – Martha. As noted earlier, Martha felt that she was acting without permission, yet she had been granted specific permission to take part in the study. A similar feeling was experienced by Susan, but these negative feelings diminished

over time because of the positive well-being benefits "when I first did it the very, very first time I went out I did feel a little bit guilty I was like oh I shouldn't be out here it felt strange, it felt odd because I'd never done it before and like now, I don't think twice" - Susan. Perhaps negative well-being is experienced for some people because of external factors such as affordances or management indicating whether or not the outdoor space is viable as a place to do work.

4.2.8 Mindfulness

Mindfulness relates to being in the moment where noticing the environment is important to how you experience that moment (Kabat-Zinn, 2013). One participant described the moments they went outside to work and listened to their inner self with regards to where they would end up working, "I've actually brought myself", and "my feet have brought me to" and "my little legs have brought me" and, it it's just that the freedom to choose where I want to be where I want to sit in that moment" and, "I chose each one I think it's just what I needed at that time… subconsciously it was like right I need this today" – Susan. As a result of being mindful about where to work they found that this influenced their ability to focus on their work and feel well, "I go kind of like in my own little world and I do what I need to do but it's helped me to focus I think it's helped me as well with what's been going on personally" – Susan. Through listening to and trusting in their inner needs the participant went to places to work which fit their work and personal needs, "I've gone wherever I've felt most comfortable and there's been different places around campus and just sat for a few minutes and sort of like collected myself. Not in a it's not meditation because I do… like a bit of meditation but … it's very much… breathe out aahhhh right what's going on here …what can I see what will help and … then I'm like then I'm in the right frame of mind to look at what I need to do…" – Susan. They continue, "…I naturally run at 100 mile an hour 6 or 7 things all on the go at once… so to be able to…just focus on one thing almost kind of felt a little bit strange but it has helped me to slow down a little bit and realise that I don't have to do 6 things at once I can do one thing at once if I want to do one thing at once… and the calmness it's a little bit like meditation and the mindfulness side of it it's very much taking the

time and even though I'm working it's just taking the time to focus myself on one thing and then think oh let's just do three things at once rather than six and do it that way so it has helped me to slow down a little bit as well" – Susan. In this instance, the experience of mindfulness is both in relation to noticing the outdoor environment in nature together with a mindful approach to work tasks also. This could be reflective of both location autonomy where the ability to choose a space based on the task to be completed and the immersive experience of nature combined with the senses detailed earlier in this chapter (sub-section 4.2.6, p.99) are important. Importantly, the participant was able to focus on one task whilst also focusing on their own needs. This is similar to the experience of Mark (mentioned in the tasks sub-section, 4.2.4, p.93) wanting to focus on reading without computer distractions.

Notably, Susan recorded an extra audio-diary to capture a moment outdoors which was felt of particular importance to them due to the depth of emotion experienced; "I know I usually do a recording of when I'm coming out and when I'm coming in again, but I felt I needed to do this one today. It's so lovely here I'm sitting just looking at trees, and listening to the leaves rustling and there's people, people wandering by but they're all quiet, they're all respectful. There's some people sitting on benches chatting but they're sitting quietly. I think I may have found my go to place. I really do it's lovely here",– Susan. This was a real insight into a moment for the participant, they talk about senses, they talked about their needs being met, the elements of nature which were important, the lack of social interaction. However, above all the calmness and quiet of the environment is reflected both in the words the participant says but also in how they say the words within their audio-diary – the voice is quietly calm. There was a real sense that this person chose to be alone at that point but that they also wanted to share the experience. The suggestion of a go to place ("I think I may have found my go to place") suggests that the place had significance in the moment.

Micro-breaks taken as part of working outside allows for moments of mindfulness, for instance, "I also found myself just looking into space quite a lot" and "sometimes I've taken my laptop… and sat right I'm just gonna sit

here for a few minutes and just take all this in and then done some work…",
and "this is nice let's savour this for a second" – Susan. In addition, another
participant reflected that, "in … your line of sight that you are reading you
take a break, and you can see things like in the *[city]* park dogs running and
yeah it's not like in the office you look up and look at a wall" – Mark. There is
a link here to the sense of vision but there is also something about the
readiness to switch between tasks and mindful restoration/well-being such
that the change from reading small words on a piece of paper to looking up
and experiencing a bigger view is an important part of the momentary
experience.

To recap, throughout this chapter participants' lived experiences as they
have taken their work outside have been explored. The felt sense/senses
response of being amongst nature seemed to have the potential to both
influence where people worked and how they experienced the space. This
appeared to stem from memories and was aided by mindfulness. The
outdoor space affords different qualities to that which may be found indoors
and as such this can determine the type of tasks which people choose to do.
In addition, the importance of management endorsement of the initiative
cannot be underestimated, and this can be seen in the positive and negative
well-being affects experienced.

4.3 Discussion

There continues to be limited knowledge within the research community about the experience of people taking their office work outside particularly in the UK. To fill this gap further in this study I asked RQ2, *'how do people who take their office work outside understand their experience of well-being and productivity'?* As such the aim of this study was to make an in-depth exploration of people's experiences over time within a broader process of learning more about this phenomenon.

4.3.1 The experience of well-being

People's experiences of taking their work outside included a felt connection to elements of nature in the outdoor space which for them was demonstrated by positive affect and well-being. There are a plethora of ways in which a connection to nature is formed and in this study a connection to nature appeared to be formed through memories of time spent in nature. The power of memory, such that the past feeling is brought into the present moment is a powerful tool when there is a need to feel less burdened (Speer & Delgado, 2017). Thus, based on the previous positive experiences of time spent in nature a person taking their work outside when they are feeling overwhelmed may expect (Ryan et al., 2010) that this can be enough to both reduce the negative feelings of overwhelm and increase feelings of positive well-being.

Feelings attributed to nature (e.g., sturdiness) can also be attributed to the self. Thus, nature appears to be something to personally aspire to and may relate to an innate connection to nature as outlined by Wilson (1984). Some participants defined their connection to nature through their identity and Diehm (2007) suggests that this identification with nature is more akin to a sense of belonging. However, this has been criticised as being boundaryless (Plumwood, 1993; Fox, 1999) where Naess et al. (1999) argue that identification-as-kinship is a more relevant description of people's connection to nature by acknowledging that nature is valued by individuals in some way. Whilst the data in this study identifies both a sense of belonging with nature and a perceived value of nature it could further be suggested that felt connection to nature is perhaps linked to childhood experiences and

memories of time spent in nature. Thus, whilst it can be acknowledged that there is limited evidence to show that a felt connection to nature can be helpful in aiding positive affect and well-being the data so far does not determine fully at which point any connection is determined due to the limited number of participants within this study.

Where the data did show that feelings experienced outside were attached to individuals' memories of time spent in nature this led to people being drawn to work where the nature elements within that space had a felt personal connection to them (e.g., sitting on the grass with family as a child – sitting on the grass and working). This reflects the findings of association as depicted by Cheung and Wells (2004); Totaforti (2020) who both expressed that any association by memory is subjective and therefore has individual meaning. Thus, people may have a resonance towards a space which contains elements of nature which are experienced as being important for them.

The meaning of the lived experience of taking work outside into nature was described through the senses being activated because of immersion in nature known as non-rhythmic sensory stimuli. According to Ryan (2015) non-rhythmic sensory stimuli are elements of nature, usually within our periphery (e.g., birdsong), which are dynamic and unpredictable. In this study, the data showed how the participants' lived experience of immersion in nature and its stimulatory effect had the potential to develop into the taking of a micro-break (e.g., Lee et al., 2018) in a mindful way (e.g., noticing leaves falling) which in turn allowed them to feel restored. The notion of being present in a moment demonstrates that there is the potential for positive affect benefits for participants as they spend time working outside. Furthermore, these micro-break moments are tentatively suggested as being linked to sense memories as people re-live previous moments outside in nature. It is through this process that the time spent outside can be a positive mindful experience with benefit for well-being.

However, within this current study it was found that the expectation to feel well as people took work outside was not straightforward. Management

endorsement of people taking their office work outdoors at the workplace was found to be helpful for the flexible use of the space but only if this was accepted by the participants. When management endorsement was not perceived as enough to warrant taking work outside any perceived individual benefits of working outside could be lessened. That is not to say that this discounts any benefit being experienced, indeed some benefits were still experienced where the importance of nature contact was known. However, what happened for Martha in this study was a dichotomy between management acceptance of taking work outside and personal acceptance of the same such that the use of the space became subject to a negative overtone. This is reminiscent of the work by Baumeister et al. (1994) who reported that negative feelings may be experienced when it is felt that people may have committed a transgression. Furthermore, Ogunfowora et al. (2023) found that negative feelings which occur because of a wrongdoing (in Martha's case a felt sense of wrongdoing) this has the potential to affect performance. That said, in this study there was no wrongdoing, but Martha felt that a transgression (e.g., skiving) had occurred in other people's view. This has similarities to the negative feelings of skiving which historically were both aimed at people and felt by people who worked from home (e.g., Chung, 2018).

4.3.2 The experience of productivity

Participants in this study reported that productivity was linked to the affordances of the space (Gibson, 1979) and the tasks they felt could be done outside. The workplace for many is synonymous with working indoors and this may mean it is difficult for some people to reconcile or adapt to taking work outside. Whilst some studies have shown that it is both possible and beneficial to be able to take office type work outdoors in Sweden (e.g., Petersson Troije et al., 2021) the legacy of the indoor workplace may explain some hesitation over the acceptance that outdoor space is viable workspace. Furthermore, because some participants felt that they could only take certain tasks outside (which may have an effect on productivity) this may further explain any hesitation. Whilst hesitation to use a changed space has received some research attention within the workspace design literature in

relation to AF-o/ABWs (Mache et al., 2020) very little has been discovered related to hesitation to take office work outdoors. As such this study adds to the conversation started within Study one with regards to what might be a potential barrier to people using the outdoors as a viable workspace.

The varied tasks which the participants took outside in this study revealed that this was both driven by a lack of technology for some and by a desire to focus on specific tasks which may include the use of (or not) technology. Either way the time spent outside was essentially governed by the task taken outside and the length of time which was needed to concentrate on this. Thus, the length of time spent outside was varied and where recorded this was seen as between 10 minutes to over an hour. This argues against time spent outside as solely a micro-break opportunity for well-being determining instead that blocks of time to aid goal attainment and productivity may be aided by the alignment with the outdoor environment.

4.3.3 Theoretical implications

Importantly, the findings are similar to Study one in that they suggest that participants were able to both work and feel well when they were outside. This strengthens the theoretical contribution made by this thesis as I extend the soft fascination element of ART to include the ability to focus on work tasks and benefit restoratively from nature. This is an area of interest as, according to ART fatigued directed attention is restored by nature leading to renewed focus after the interaction. This is explained by soft fascination - where no active engagement with nature is required (Basu et al., 2019) which results in the restoration of fatigued directed attention. In this study I was able to discern that at times participants were able to work productively and therefore maintain directed attention whilst they were outside in nature and not solely after time spent outdoors. This suggests that there were potentially two things happening together, namely maintained directed attention and restoration. This may be related to the expectation (in line with the compatibility element of ART) that based on past experiences or memories there is the potential to bypass soft fascination because people

know that even when they are going outside to work they will still benefit from the restorative effect of being in nature.

These findings have been found to uphold the restoration potentialities of nature as proposed by ART. The knowledge surrounding which elements of nature were most beneficial to participants within this study emerged as air, grass, leaves/trees and for the most part these were in part linked to sense memories. These findings specifically add to the compatibility (sense memories) and extent (elements of nature) elements of ART and increase our knowledge of the types of nature which are beneficial to well-being and why when work is taken outdoors. This has important implications for the theory as it helps to develop our understanding of what elements of nature are important within an outdoor space and the preferences people may have but also, through this study understanding has been gained about some of the mechanisms which allow this to happen (e.g., sense memories and feelings connected to memories). The specific memories which some participants discussed as part of their interviews helped to unpick why they were drawn to certain elements of nature to work near (e.g., the sensation of the feel of grass) and how in doing so they were able to re-live the historical emotions which sat alongside these memories. Thus, some conclusion can be drawn that the needs of the participants relate to elements of nature which trigger memories associated with the senses and the associated feelings.

4.3.4 Practical implications

This study makes a practical contribution by offering businesses an understanding of what taking work outside means for people. This creates an opportunity for the development of outdoor areas at the workplace by incorporating working outside as a viable workspace option. As has been found in this study this can allow a workforce the ability to access an outdoor space (which has positive well-being and productivity potential) when there is management endorsement and the outdoor space is fit for the purposes of working in (e.g., affordances/elements of nature). Based on the findings of the study the practical implications for the beneficial use of an alternative

outdoor working space would include tables, seating, and shade. Power points were not always determined as being required due to the tasks undertaken. Similarly, although the merits of a pre-specified work area outside was found to benefit Martha others preferred that no areas were specified; instead, they preferred to access general green spaces within which to 'hide' or that were most closely aligned with specific needs. It would be advisable for businesses to install any affordances prior to them opening an outdoor space for generalised working so that a workforce can perceive from the outset that the management are onboard with the initiative with clear directives for its use to minimise negative feelings related to the usage. Based on the findings of this study trees (leaves), grass, fresh air and sun are the possible elements of nature which are recommended as beneficial to access within an outdoor space. Any workplace outdoor space provision is not designed to be an onerous task for businesses to provide, indeed the outdoor space is not meant to replicate an indoor office, and this is reflected within the minimal affordances and elements of nature recommended.

To recap, through using a range of data collection methods my research has shown an understanding of the experience of being able to take office work outside and what this meant for the participants well-being and productivity. This is important as I attempt to learn more about the meaning of the experience of this phenomenon, what elements of nature are important to people and what needs have to be met to allow people to work outside. This study joins in with the biophilia in the workplace and the workspace conversation as it currently stands - adding outdoor workspace as a viable alternative workspace option.

4.3.5 Limitations

Beyond the theoretical and practical contributions and the knowledge which this study has shown there is an acknowledgment that this study had a limited sample from one university in the UK. As an exploration into what this phenomenon means for the people who took part, the study was successful in achieving its aims and objectives however, only people who were interested in taking their work outside at the workplace were invited to take

part. As such the sample were potentially biased towards outdoor working perhaps due to an existing connection to nature. Therefore, because this study was primarily aimed at understanding the lived experience and meaning for participants at the workplace this discounted people who did not want to take their work outdoors or those who took their work outside at home.

This study had a smaller sample than originally intended. This had implications on the amount of data I could collect to meet the design requirements (e.g., a lack of audio-diary and photo submissions). This means that the findings are limited in their transferability to other businesses, and there were some insights that emerged where only tentative conclusions could be drawn (e.g., the implication of management endorsement or not, connection to nature).

A lack of audio diary and photo-elicitation data was attributed to one main issue and that was the lack of the participants coming back onto campus to work more regularly. This was because external factors such as bus strikes and the convenience of hybrid home-based working meant that when they were on campus some participants felt that they needed to be seen at their desks. One of the prerequisites for taking part in this study was the requirement to work outside whilst on the university campus. Thus, people were discounted who worked for the university but worked from home and who could access their own outdoor space (e.g., home garden or balcony) from which to work.

With hindsight and on reflection that hybrid working is remaining as a flexible form of working (Davis et al., 2022) including people who were interested in also working outside at home would have increased the sample for this study.

4.3.6 Recommendations and future research

Importantly, this study has shown some of the needs which should be met for any restoration benefit and resultant well-being to occur – namely, elements of nature, management endorsement, sense memories, and mindfulness and

that for productivity to be experienced affordances, tasks, elements of nature and well-being are key components.

As more is known about this phenomenon the opportunities for future research are revealed and include specific opportunities to understand more about the organisational role in determining where people can do their work and how this is communicated, if at all. This has been highlighted as a potential source of unrest within this study where a lack of feeling that outdoor space is not viable can lead to people then being less likely to take their work outdoors.

The purpose of this study has been to learn more about people's experiences of taking their work outside and what this means for them. Based on the findings of the study and specifically in terms of the people continuing to hybrid work, to now include people who have also worked outdoors when at home would be a better reflection of the overall working environment as it stands at this moment. This iteration is important for me to consider as I understand from the survey in Study one that many people are already engaging in this practice, be this at home in the garden or at a third workspace (e.g., a local park). The future research as part of this doctoral thesis will look to understand further what the experiences are of taking office work outdoors (both at the workplace and at home) and how they are achieving this, to develop and build on the current understanding and answer how and why people experience the phenomenon as they do.

5. Study three

5.1 Methodology

5.1.1 Aims and objectives.

Within Study three my aim was to further investigate participants' experiences of taking their office work outside. During Study one, the data revealed interesting findings in relation to participants' experiences and how they felt in three moments – while thinking about taking their work outside, while working outside and after returning inside. This study provided a broad, albeit shallow, range of experiences and allowed me to understand how participants were using the outdoor space. Study two allowed for a deeper understanding of the phenomenon over a six-month period, albeit with a limited sample. This second study added to our understanding of the experience of taking office work outside and provided some initial insight into the processes and reasons that underpin this experience.

The objective of Study three therefore was to build on both of these studies and understand participants' experiences in more detail. In this Study, I was concerned with all three research questions: RQ1 *'how do office employees use outdoor spaces as workspaces?'*; RQ2 *'how do people who take their office work outside understand their experience of well-being and productivity?'*; and, importantly, RQ3 '*how and why do participants experience well-being and different degrees of focused productivity when working outdoors?'*. To do this I identified participants of interest in relation to the answers given to the 'what 3 words' questions from Study one and invited them to attend a semi-structured interview. This process then allowed me to observe any patterns which emerged amongst the data and participants. The interviews were audio recorded, transcribed and open-coded in NVivo to allow for further interview participants to be identified using theoretical sampling until theoretical saturation of the codes of interest were satisfied. A Grounded Theory analysis approach was used to inform the process of data collection and analysis to allow the participants' experiences to be explored.

This chapter provides an overview of the methods, findings, and discussion of the findings. It begins with an overview of the research setting, followed by research design (including participants, theoretical sampling and data collection and data analysis (including memo-writing, open-coding, in vivo coding and focused coding) concluding with the ethical review section. In the results section (5.2, p.132) I demonstrate the well-being results within the context of ART, I also show where the results for well-being sit outside of ART. This is followed by the variation in productivity results. Finally in the discussion section (5.3, p.157) I demonstrate my understanding of how and why well-being and productivity were experienced to answer the research questions.

5.1.2 Research setting

To remain open to understanding more about participants' experiences of taking their work outside meant that in this study I did not specify whether this working outside happened at home or in the workplace or both. The choice to use participants who had worked outside in either setting was a pragmatic decision which reflected 'hybrid' working as somewhat normalised at the point of data collection, (Davis et al., 2022). It was hoped this would help inform both the research community of where people were doing their work but also to let businesses know how, where, and why people may be taking their work outside so that they can re-consider their workspace where appropriate.

5.1.3 Participants, theoretical sampling, data collection and data analysis

I have put the four elements of participants, theoretical sampling, data collection and data analysis together at points within this section because they are inextricably linked. This is because the number of participants is determined by the theoretical sampling, the data collection, and the data analysis.

5.1.3.1 Participants and theoretical sampling

Participants for Study three were recruited using theoretical sampling. According to Charmaz (2006) theoretical sampling is a means of recruiting participants based on the development and clarification of properties within

the emerging theory. This means that the sampling method is both focused on answering the research question and is an iterative process where I could further expand and test (Nelson, 2016) the emerging theory.

The number of participants invited to participate in interviews is not straight forward and the optimum number of interviews required within a study using Grounded Theory Analysis to achieve what is termed as 'theoretical saturation' continues to be debated (Rowlands et al., 2016). I will return to the topic of theoretical saturation in the coding sub-section (5.1.3.4.2, p.125) of this chapter. At the start of Study three the number of interviews I was aiming for was between 40 and 50 which according to Bernard (2000) is within the optimum number of between 30-60 participants in a Grounded theory study to reach theoretical saturation. However, the debate around the number of participants required continues: Low (2019) determined within their review paper that the optimum number of participants is between 15 and 60 when using Grounded Theory. From a more precise angle Charmaz (2003) argues that the number of participants used in a study needs to be justified to the singular. This means that there is no point recruiting 50 participants if you have reached theoretical saturation at 49, likewise there is the concern that if data collections stopped at 49 and there was little depth to the properties of the emerging data this would not be enough. Consequently, it is worth reiterating that it was my aim to interview 40 – 50 participants dependent upon theoretical saturation as the study progressed over time.

Choosing which participants to invite for the first round of interviews using theoretical sampling was informed by the results from Study one. I had already coded participants answers to the questions: what three words best describe how you feel when (1) you are thinking of taking your work outside, (2) when you are working outside and (3) when you return inside. This helped me to identify eight groups which participants were placed into based on whether their answers were positive (e.g., relaxed) or negative (e.g., stressed) in eight different combinations.

The inclusion of participants from the eight groups was an important consideration as this allowed me to compare participants from different

categories that emerged in the data. Comparison within the data is a key component of using Grounded Theory analysis to understand individual experiences of a shared phenomenon (Locke, 2001). The categories participants were placed into were as follows (table 18).

Table 18. Table of negative and positive groupings from Study one.

Group number	'When you think about taking your office work outside what 3 words best describe how you feel?' (1)	'When you do take your office work outside what 3 words best describe how you feel?' (2)	'Thinking about a time when you have taken your work outside, what 3 words describe how you feel when you return to working inside?' (3)
1	Positive	Positive	Negative
2	Negative	Positive	Negative
3	Positive	Negative	Positive
4	Negative	Negative	Negative
5	Negative	Positive	Positive
6	Negative	Negative	Positive
7	Positive	Negative	Negative
8	Positive	Positive	Positive

A good proportion (534) of the 1,017 survey participants from Study one were living and working in the UK which meant that I could focus on these participants only for this study. The geographical setting of the participants was an important choice because at the point of this study going ahead no other similar study had taken place in the UK leaving me with an opportunity to focus on this cohort and their experiences of taking their work outside. I also felt that in placing this boundary on the geographical research setting this helped me to focus on a cohort who were all experiencing similar

weather patterns, which according to the results of both Study one and Study two would have had a bearing on the participants' ability to take their work outside.

Potential participants were given a brief overview of the study and the opportunity to learn more by moving onto the linked Qualtrics study or return the study (appendix xix). Participants were asked to read the study information sheet (appendix xx) and if they were happy with the contents, they could then choose to consent to take part in the study by ticking the consent to take part option. If they chose not to consent to taking part in the study after reading the information sheet for the study, they had the option to return to the Prolific page where they could then return their invite.

People who were happy to proceed were directed to my booking page on The University of Leeds Office 365 so that they could make an appointment on a day and at a time which suited them within the parameters I had set. Extended times to the working day were offered for the interviews and these were from 7:00am till 19:00pm Monday, Wednesday, and Friday and 7:00am till 17:00pm Tuesday and Thursday. Furthermore, participants were also able to book for Saturday morning appointments between 9:00 am and 13:00pm. After participants had booked an appointment for their interview, I was notified of this via my University Outlook email. This meant that I could then check on the study page of Prolific that the completion code had been issued and that the consent to take part box had been ticked in Qualtrics.

5.1.3.2 Data collection and analysis

Using Prolific linked to a Qualtrics page (as in Study one) the first invitations to participate went live on 27th March 2022 and was sent to 35 potential participants selected from the eight groups identified in the preceding section. Sixteen people were happy to proceed to interviews from these invites. After the initial interviews with the 16 participants there were six participants in group one, one participant in group two and nine participants in group four.

Given that data collection and analysis ran side by side, once the first round

of interviews had taken place and acknowledging the difficulty in obtaining participants willing to be interviewed across all eight groups, there was then a window of opportunity to assess the next move in terms of data collection. I focused the categorization upon the positivity (or negativity) of experiences during and after working outside. This led to the formation of four groups: 1) Positive while outside but negative after; 2) Negative while outside but positive after; 3) Negative both outside and after coming inside; and 4) Positive both outside and after coming back inside. I incorporated the participants from round one into these new groups determined by their answers at the two time points (working outside and returned inside) shown in the table (19) below. I will refer back to and signpost this table at different points throughout this section.

Table 19. Table of interviews at four timepoints.

Date of invites going live on Prolific	Round	Number of people invited to interview	Number of people interviewed	Group 1 Positive outside /neg back inside	Group 2 Neg outside/ positive back inside	Group 3 Neg Outside/ Neg back inside	Group 4 Positive Outside/ Neg back inside	Group 5 Productive/ focused
27/03/23	1	35	16	6	1	0	9	
31/05/23	2	27	10	3	0	1	3	3
19/06/23	3	53	16	0	7	6	0	3
26/06/23	4	47	6	0	0	0	0	4
TOTALS	4	162	48	9	8	7	12	10

Methodological considerations based on the theoretical sampling process meant that I followed the data and the emerging theory to consider what was emerging and which may be different to expectations or current theory. As such, during the initial data analysis of the first round of interviews and the open coding process well-being was strongly represented which supports ART. However, some participants were also talking about feeling productive and focused alongside feeling well – "Well, for me, anyway, it makes me feel happier in myself, but that then it makes me feel more productive and makes me more happier, more focussed and lucky" - Julie. This productivity finding (which also emerged in Studies one and two) sits in contrast to ART which purports that restoration occurs after nature contact not simultaneously.

Based on this emerging theory I made the decision to also contact participants (alongside continuing to recruit participants from the four previous groups) who had mentioned productivity and/or focused when asked for three words relating to how they felt when they were working outside (group five). This reflects the notion that Grounded Theory Analysis is an iterative emergent approach (Sim et al., 2018). UK participants were then sought from the original survey sample based on whether they had used the word productive or focused when working outside along with further invitations to participants who were in the original groupings.

A further twenty-eight participants were then chosen to be invited to interview based on these criteria (focused/productive or in one of the 1 – 4 groups). I deliberately kept the number of invitations low at this point due to the iterative nature of data collection, preferring to see what emerged from the data before inviting more potential participants. After cross checking the new cohort of about to be invited participants, it was found that one participant had already taken part in the interviews; they were removed from the new list making the total invited for round two of interviews on 31 May 2023 as twenty-seven. Of these ten were interviewed, with at least one participant in each group allowing for comparisons and meaning that a total of 26 interviews had taken place (table 19, p.120).

On 19th June 2023 an additional 53 participants were invited to interviews. I had increased the number of invitations at this stage in an attempt to increase the number of interviews taking place. The participants were again chosen due to their inclusion into one of the five groups. At this point I did not feel that the emerging categories were theoretically sufficient (page 126) and this was driving my decision to carry on with the groups as before. Of these newly invited participants sixteen participants came forward for interviews bringing the total number of interviews which had taken place up to 42 (table 19, p.120).

After these interviews the groups were becoming more even and theoretical sufficiency was also beginning to occur. This was shown in Nvivo as at least half of the participants being represented within a code. Furthermore, the

number of times the code had been used was deemed as theoretically sufficient (p.126) in that there was "adequate depth of understanding to build a theory" (Braun & Clarke, 2019 p.2) emerging.

After the coding of this data, I invited a further forty-seven participants to interview on 26th June 2023. As well as participants from the five groups I also included in this round of invitations people who had said they felt either: creative; grateful; alive; and connection. These invitations were again based on the data from the previous interviews and offered lines of interest to pursue which appeared to have some significance for the participants. Of these invitees six agreed to interviews bringing the total amount of interviews which had taken place to forty-eight (see table 19, p.120) at which point there were 9 people in group one, 8 people in group two, 7 people in group three, 12 people in group four, 10 people in group five and 1 each under the themes of grateful and creative. I decided to stop data collection at this point based on theoretical sufficiency in the key areas of interest. Sub-section 5.1.3.4, p.124 describes the data analysis in more detail.

5.1.3.3 Semi-structured interviews

Thus, semi-structed interviews took place with 48 participants all of whom had previously completed the on-line survey (Study one) via Prolific. The participants accessed the Microsoft Teams interview via a link issued during the booking process and the interviews began with a quick checking in with the participants followed by a re-iteration that the interview was to be audio recorded. I used the software on my iPhone to capture the interviews which I had previously done with success in Study two. After the interviews the audio recordings were immediately transferred to the university Office 365 one-drive and deleted from the iPhone. The interviews were coded numerically as they were transferred to the University one-drive.

The start of the interview was a good opportunity for me to introduce myself, the study and to describe how the interview would unfold in terms of questions to be asked and how we would follow the conversation in terms of points of interest where this was fitting. I also clarified to the participants that

the interview would be more of a chat or a conversation. The aim of this was to help participants feel comfortable enough in themselves that they felt that they could take part in the conversation and where I could gain understanding of their experience without this feeling onerous to them.

Trust is a key element within any participant/researcher relationship even if that relationship is a brief interaction (Easterby-Smith et al., 2018) which would not be repeated and takes place online. To do this, in all but two interviews keeping technological device cameras turned was an important consideration in that the participant and myself were able to see each other (James & Busher, 2012). This gave the added advantage of seeing how the questions were landing with the participants and enabled me to gauge the flow and structure of the interview. If I felt that a participant was struggling with a question, I could introduce a less taxing question to allow us both a moment to take stock before continuing again. The building up of trust also enabled me to ask probing questions of the participants (Saunders et al., 2016) when appropriate.

My role within each interview was to ask questions and to follow up on the emerging experience as it was recalled. Whilst I did have several pre-determined questions to ask (appendix xviii) these were in no means prescriptive or to be asked in a particular order and this reflected the importance placed on the individual experience (Breakwell, 2012) within this study allowing the interview to flow and be flexible (Easterby-Smith et al., 2018) as points of interest were followed organically. The questions did however offer a framework to follow particularly where participants were less than forth coming in their answers. In these instances, the knowledge that there was a back-up of questions to ask helped to maintain the flow of the interview until an answer acted as a hook for further probing. During the interviews I would often acknowledge the thought-provoking questions and thank participants for their efforts and contribution in their attempts to answer the questions. I was also acutely aware of my role as a researcher which, although it was informed by counselling expertise, was not driven from a counselling mindset; and the participants experience of the phenomenon was the primary objective. However, as can happen when asking participants

about their experience of something this may bring up intrusive thoughts and for which I had previously (for Study 2) prepared a word document (appendix xiii) of suitable helplines to offer to participants if it had been felt that the conversation had entered territory which left participants feeling vulnerable.

Towards the end of each interview, I stated that I had asked everything that I wanted to but then I invited the participants to add anything which they felt I could have asked and had not but which on reflection they felt was important for me to know as part of the study. Again, this helped with the balance of the interview and gave the participants the power (Vähäsantanen & Saarinen, 2012) to add something about their experience and the context within which the experience happened which was individually important. Furthermore, when I stated that I had asked all the questions I would like to, this primed participants that we were nearing the end of the interview enabling me to wrap up by thanking the participants for their important contribution to the study and for their time. Participants were paid £11.50 for taking part in the interview. The audio recordings were forwarded via Microsoft Teams to the supervisor who then put the recordings through the Trint transcription software. Trint is a secure and licenced transcription software which is recommended for use by the University of Leeds. The transcriptions were then returned to me via Microsoft Teams from the supervisor. The audio recordings and transcriptions were coded throughout to maintain the participants' anonymity.

5.1.3.4 Data analysis (memo-writing, open-coding, in vivo coding and focused coding)

Data analysis began with the transcripts as they were received back from Trint via my supervisor. My first task was to listen back to the audio recordings and check the transcriptions. This provided two opportunities: to be immersed within the conversation again (Charmaz, 2006); and to amend the transcription where necessary. It is understood that it is preferential to code each transcribed interview before conducting the next interview so that information obtained during each interview can be rolled forward to inform the next interview and so on (Starks & Trinidad, 2007). However, due to the number of interviews often taking place over a small number of days I

decided that I would schedule coding based on a round of interviews (as part of the theoretical sampling process): when a round was completed, I checked each transcription and coded them one at a time before determining the next group of participants to approach. This was helpful in terms of the iterative approach of the study but also meant that researcher fatigue at coding a large amount of data was spread out over a few months.

5.1.3.4.1 Memo-writing

Within this study NVivo was a helpful qualitative software tool which allowed for coding of the interviews and simultaneous memo writing (Jackson & Bazeley, 2019). I used memo writing because it is an essential element of Grounded Theory whereby thoughts, inclinations, interpretations, and questions posed by the researcher are captured at the moment of the thought (Locke, 2001). This was important because otherwise the in the moment thought could have been lost. Furthermore, memo-writing whilst coding allowed for thoughts to be developed which may have proved to be vital to the next round of interviews and the development of categories (appendix xxi). This meant I had the opportunity to reflect more broadly on the emerging data and where my thoughts laid in terms of the emerging theory. This acted as a personal audit (the term audit first being stated by Lincoln and Guba in 1985, and again by Miles et al. in 2020) whereby the choices with regards to decisions of who to interview and how the categories were emerging were captured.

5.1.3.4.2 Coding

Within NVivo I open coded the interviews which Holton (2007) describes is to understand the data in relation to the study. I chose to use a 'broad-brush' (Jackson & Bazeley, 2019, p.69) open-coding approach to the interviews in NVivo. Broad-brush coding is where a paragraph is taken as a whole and then the data is put into individual codes which are all present within that paragraph. This means that the resultant coding stripes and any further queries (e.g., matrix coding query) will show where different codes have been mentioned together in the same paragraph helping to show any patterns (Jackson & Bazeley, 2019). This is helpful because this shows

connections between codes within the context of both the answer to a specific question but also within the broader interview corpus.

Coding in this way mitigates against data being missed and aids the saturation of codes where the researcher's mind is still open to surprise before homing in on aspects which add to the emerging theory. I will now consider the term 'saturation', generally acknowledged in Grounded Theory as theoretical saturation and determined as the point at which no new data is arising which can expand the data driven theory (Lowe et al., 2018). This is a note of contention leading to Dey (1999, p.257) declaring that saturation is an "unfortunate metaphor" and that "theoretical sufficiency" is preferential. Alternatively, Nelson (2016, p.554) proposed 'conceptual depth' with 5 key elements to determine this conceptual depth: a range of evidence, evidence of connections, comparison of connections, a connection to the extant literature and validity. Whilst appearing as a somewhat tick box procedural approach, the emphasis remains on one of questioning, openness, re-visiting and upholding of the importance of the data (Charmaz, 2006). Furthermore, both O'Reilly and Parker (2012) and Green and Thorogood (2004) state that saturation in grounded theory is indicative of the codes and the relationships being fully explained and validated whereby theory emerges from the data. Green and Thorogood (2004) further explain that the process towards theoretical saturation is iterative; where the data and the analysis of suggests new avenues of data collection until theoretical saturation is satisfied. Arguably, the conclusion made by Low (2019) that theoretical saturation or indeed any type of saturation within qualitative research is simply not possible has to be considered and any claims of saturation being satisfied need careful codicils attached. It does seem that claims of saturation are an issue for a great many researchers, but Saunders et al. (2017 p.1904) offer a solution to this stating that if researchers understood more about why saturation is helpful to their study this may help ease the "uncertainty".

As far as this study is concerned theoretical sufficiency will be the benchmark of saturation as it is my belief that each time that I investigate the data and the concept at hand I could see something different, this reflects that the data would always be prone to my subjectiveness (Starks & Trinidad,

2007) and therefore theoretical saturation is problematic. Thus, I decided that theoretical sufficiency in this study would be the point at which the data was exhaustively coded, and no new deep understanding of the categories and their relationships were emerging (Braun & Clarke, 2019), shown on pages 127-130.

During the coding process of the individual interviews focused attention to the data was required to reduce any attempts to "make" the data fit any of the existing codes.

Table 20. Table of excerpts from the open coding process.

Excerpt from interview	Open code
"I do feel so relaxed and unstressed that that is then reflected in my work and that was effected in my work being a bit less productive" - Jane	Less productive
"So definitely feel it kind of improves my wellbeing" - Katie	Well-being
"I feel that if people are given a bit of a more informal surrounding, they're a bit more approachable. I think they perceive you as more approachable and it just seems to open things up" - Moira	Relaxing of hierarchy
"And it's like I can do, like within the space of an hour, I could probably do like 3 or 4 hours of work" - Daniel	Productive
"I suppose at the back of my mind it's also thinking, you know, if someone does try and get hold of me and I'm outside, what are they going to think if they kind of clock that you know, are people going to think that I'm skiving off" - Lisa	Projection of feelings of skiving
"I quite enjoy the feeling of having like a ray of sun, like having the sun in my body and just having like fresh, fresh air not being stuck inside" - Lucy	Senses
"we did a lot of stuff with my parents we would go to National Trust type places, out and about and things like that but I don't know if it's because I'm an environmental manager, so I do tend to spend a lot of time outside anyway when I'm not at work and a lot of my job is looking at things outdoors so that does help and my background is being very outdoor outdoorsy" - Anne	Memories
"So if, if you are I suppose in my back garden, if the neighbours were being noisy then I'd have to go back inside like if I was on a call or something. And if you were in like a park or you were out somewhere and if it was noisy then yeah, you'd have to go back inside" - Julie	Distractions

This was necessary to capture the nuances of each of the individual experiences. As a result of conducting open coding using NVivo, 343 codes were generated from 48 interviews, and this was directly linked to the answers given by the participants. Above is a table of interview of excerpts which demonstrates the coding practice, (table 20). As in Study 2, I use pseudonyms for participants rather than referring to them numerically as a mark of respect.

During the open coding process, I also chose to in vivo code based on how, through the spoken word participants were either using words representative of the cohort, were slang terms, cliched words or innovative words used to describe their experience (shown in table 21 below).

Table 21. In vivo coding

Example	Meaning
"It acted as a sort of wrecking ball" - Andrew	The constraints imposed on people during Covid led to people wanting to knock walls down and consequently spend more time outside
"conjures" - Malcolm	Imagination is fired up in a way which feels magical
"I get quite itchy feet" - Robert	During working hours they feel like they need to move around
"it's like a pressure cooker" - Alison	Working inside an office people are susceptible to other people's emotions and behaviours
"It's like a prison" - Graham	Description of an indoor workspace with no windows
"extra icing and cherry on the cake" - Hugh	The well-being feelings associated with working outside and being productive

These precious nuggets of speech offered up a deeper understanding of the participants' experiences in condensed, personal ways (Charmaz, 2006). As such 'in vivo' codes represent the personalised lived experience of the

participants where the data drives the study as opposed to existing theory driving the study (Saunders et al., 2016). This is important within this study to maintain the emphasis on the experience of the participants as they give meaning and action to this experience.

The next stage within the data analysis was to make decisions about which were the most important codes to further engage with as I continued to have an iterative relationship with the data. Re-visiting any previously coded interviews I was able to see beyond the codes developed through open coding to reveal further snippets of what the participants were trying to tell me of their experiences (table 22).

On first glance, the paragraph in the table (22) below had been coded thoroughly, but during the process of focused coding I was able to see how this participant had been able to take work outdoors because this had been viewed as an opportune moment to relieve stress by using location autonomy (highlighted): The results had been positive.

Table 22. Focused coding

Code	Excerpt - Maria
Escape from low mood Well-being Autonomy Time-crafting Productive Hedonistic Less stress. Location autonomy	"It has come organically. It's come from a need of just being having to escape and and knowing that potentially like because my children are only what four and five at the moment so I don't necessarily have the time to do lots of afternoon classes or go to the gym every night, there's a lot less me time, but I've had to find me time elsewhere and it's that's just taking half an hour to sit outside on a laptop and just feeling a little bit more calm and happy. Then I take what I can at the moment".

I then further learnt that the taking of chance moments had not only aided their well-being but had negatively raised their concerns (negative well-being) as to the viability of taking work outside highlighted in table 23 below.

Table 23. Focused coding

Codes	Excerpt - Maria
Location autonomy A need to be managerial driven In-vivo ==Well-being negative== Productive	"it's also an easy option for them really because it doesn't cost them anything. Erm I think what would make me more inclined to do it is say I saw my CEO or senior boss doing it and almost then you'd feel like you've got sort of the tick to do it. Erm the fact that I haven't it makes me a little bit more ==wary and apprehensive== about doing it and even though I think you know you get as much done as potentially as you would do indoors".

For the participant in the above tables (22 & 23) their decision to act on an opportune moment was driven by a need to be outdoors to relieve low mood and re-establish their well-being where they had a good understanding of their relationship with well-being and physically being outdoors. This allowed the spotlight to be shone on how taking work outside can be beneficial for both the category of well-being by reducing stress (well-being) and creating unease (negative well-being), whilst maintaining another category namely productivity. Location autonomy was then 'developed as a category' (Charmaz 1991 and 2006 p.60) for comparisons within the whole of the dataset where other participants had experienced location autonomy also. This helped me gain clarity within experiences by constantly comparing these experiences and the processes (i.e., other codes) which were linked to this. This was made available to me using coding stripes within Nvivo. For instance, as in the above table (23) alongside location autonomy coded at the same time were in-vivo, a need to be managerial driven, productive and negative well-being. Thus, I could see connections between codes where they had been coded together from any one paragraph within the interview data. This starts to show the developing relationships between the codes like that of Axial coding as purported by Strauss (1987), where my ideas, and how I was beginning the process of making sense of the relationships between the codes, and the development of the categories started to emerge. To clarify my position, Axial coding as prescriptively set out by Strauss (1987) was not followed within this study because I was developing

the categories and how the codes were related to each other without a pre-set structure to follow, which reflected my constructivist approach to the data. Once the focused coding had been completed, I looked back at the codes I had created during the coding processes checking for any duplicated codes and codes which were similar and then I merged these codes together within Nvivo. This reflects the iterative and flexible approach taken within this study which allows for changes to be made to the coding (Jackson & Bazeley, 2019) such that decisions made at an earlier point can be altered as new insights emerge. Moreover, this was helpful because it enabled me to access excerpts from the interviews which were under one appropriate code and not duplicated where I may have missed some coding relationships. In total 43 codes were merged due to duplication leaving me with 300 codes. This left me with a new opportunity to look at the relationships between the codes and how they were related to the three categories of productivity, well-being, and location autonomy. I did this by conducting matrix coding queries in Nvivo for each of the three categories: well-being, productive, and location autonomy; I also ran matrix coding queries in Nvivo for the comparative examples to these which were: negative well-being, less focused-productive, and location autonomy concerns (appendix xxii). I was satisfied after the fourth round of interviews that I had reached theoretical sufficiency within the data as I was able to determine that the data had been exhaustively coded, and that no new deep understanding of the categories and their relationships was emerging (Braun & Clarke, 2019).

5.1.4 Ethical review

During the interviews conducted within this study care was taken by the researcher to uphold the anonymisation of the data. This was done by initial numerical coding of the interview data followed by pseudonyms being allocated to the participants during the writing up phase of this chapter.

5.2 Results

Within this study I aimed to gain further understanding of the experience of people who take their office work outside either at home or at the workplace or both. I did this by combining the three research questions of.

- RQ1 *'How do office employees use outdoor spaces as workspaces?'*
- RQ2 *'How do people who take their office work outside understand their experience of well-being and productivity?'*
- RQ3 *'How and why do people experience well-being and different degrees of focused productivity when working outside?'*

The results were developed through understanding the individual experience and the experience of the processes at group level (Suddaby, 2006), namely those who in Study one, mentioned: 1) Positive while outside but negative after; 2) Negative while outside but positive after; 3) Negative both outside and after coming inside; and 4) Positive both outside and after coming back inside; 5) Productivity; or 6) Creative, grateful, alive or connection. These comparisons allowed me to develop an in-depth understanding of well-being, productivity and location autonomy which were all identified as interesting and relevant to pursue as part of the experience of the participants as they take their work outside. I begin this results chapter by explaining the results from the interview data in relation to well-being followed by the results in relation to location autonomy and lastly the results related to productivity.

5.2.1 Well-being

Beginning with the findings for well-being I will show the results within the context of the four elements of ART required for restoration (being away, extent, compatibility and fascination). Next, I explore Location Autonomy and well-being as an extension to ART.

Well-being was discussed frequently and by a lot of people showing the strength of feeling and widespread nature of the positive affect. This demonstrates how taking their work outside into nature was beneficial to the participants well-being as part of their working day. For example, Jane said,

"I just feel like a bit lighter", while Malcom expressed it as "It makes me happy" and Kathryn said, "I just feel more relaxed, and I think that's what helps me". Both Mary and Tom used the term mental health in their discussion of it "…this is for my mental health. You talk about mental health, you talk about wellbeing, and this is what I need to do. To, you know, improve my wellbeing" – Mary, "I think my mental health has been a lot more stable, more robust since I've been working outdoors certainly" – Tom.

So far, the well-being benefits of nature have predominantly been explained in the literature through ART (Kaplan & Kaplan, 1989) where restoration of directed attention is enjoyed and includes the four elements of extent, being away, fascination and compatibility. These elements act to relax, restore, and energise individuals such that feelings of fatigue from sustained directed attention are reduced. The results of this study do indicate that restoration in all four elements of ART (because of outdoor nature contact and the implicated well-being) are experienced by participants as evidenced below (table 24).

Table 24. Interview excerpts - ART in relation to restoration and well-being.

Being away	Extent	Compatibility	Fascination
"So when things do get a bit too noisy or a bit too busy in the office and it is a bit overwhelming then it's nice just to sit somewhere on your own. And like I say, we've got, we've got these benches outside that we can utilise" – Malcolm.	"…being able to look around a little bit at nature and then just getting on my work feels like it kind of lifts my spirits a bit" - Katie.	"So moving away from your desk… I mean, that that is a big relief, actually… You know, I can sit in my garden you know and I've got my laptop and yeah it's like, you know, a different experience… This is, you know, this is nice. This is something I can get used to because, yeah, you're out there with nature, you know, just working happily you know, out there" – Denise.	"for me, the positives of working outside and enjoying that dynamic environment outside and enjoying, you know, seeing the birds and everything flying around and being in my own space…. It negates any negativity from work. It makes me feel calmer, more relaxed, more capable of just doing what I want to do with a level and calm head…" – Tom.

"So yeah, free it's just that outside feeling again. You know, I think, when I'm indoors, I'm surrounded by all these things I need to do. Not just work wise, but because I'm a homeworker and my house is a bit of a tip you know, everywhere I look, I can see things that need doing" – Lisa.	"I feel calm because it's made me calm outside… relieved that maybe I've been able to get a bit sunshine and I've been able to sort of take in the natural environment around me"- Maria.	"I have always been an outdoorsy person and I find being inside is quite oppressive. It's, I feel stuffy inside. So any opportunity I get to go outside, I take it" – Alison.	"…within a few minutes of being outside, you know, taking a few breaths and then, you know, just becoming aware of the the sounds, the smells, the temperature, you know, the way all of that, all of that stuff combined, it's almost instant instantaneous in that you feel that I feel more relaxed and I can feel the stress just dropping away" – Hugh.
"Some things it's just nicer to get out of the office environment and have a bit of privacy to that extent" - Moira.	"So it's kind of the lack of walls is nice being kind of outside, like feeling a bit more unrestricted by your surroundings and you know, it's very pleasant to be around kind of a big green space. So, you know, with the garden and the trees and all of that kind of thing…" - Martin	"Erm, you can feel confined working in an office space or a classroom. And because with the days being quite busy, you generally end up being in an office or a classroom and you don't always get a break even. The little space in the day that you get to look at something different to be in nature is quite precious. So that that would be my main motivation that I want to look at something different, listen to the birds singing, maybe getting the sunshine if we have any, which we do at the minute" – Nicola.	"And then I think like sometimes when I start a bit early in the summer but it is so peaceful, so quiet, and then you've just got the birds coming in just coming in. It's like, for example, sometimes when I wake up at 7:00 to work, it's just that really is just so peaceful and quiet" - Daniel

5.2.2 Being away.

I will now examine the four elements of ART in more detail together with the supporting results from this study beginning with being away. According to ART being away can relate to moving into an outdoor space in nature which is straight forward to access (Kaplan, 1995) but being away is most likely to

occur as a result of removing oneself mentally away from the stressor. The data revealed that participants were moving away physically from demanding elements. This was occurring in both the workplace, "When you walk back into the office, it's when it all comes back to you. Oh the phones are ringing. You know, people are wanting me to do this that and the other. Out there it's just, there's just none of that so they thoughts about the phone that goes on the back burner" – Alison and at home "I think being away from, you know, it's so easy to put the television on, put a bit of music on when you're inside – Oliver.

Amongst these distractions escaping the demands of other people was experienced. For instance, Daniel said "within the space of an hour, I could probably do like 3 or 4 hours of work. Something if I was at work in the office where, you know, people are constantly coming in to bombard me asking questions". The demands were also associated with indoor noise levels, "One reason is that the office can get quite noisy. There's often people on the phone. There'll be various people having online meetings. And if you need an online meeting as well, it can be, you know, just too much, you can't hear what you're doing or it can be quite distracting. So it's often quieter outside" - Katie. Alongside the colleagues and the noise were the associated feelings of intensity which could be escaped from by physically being away "But at the same time, you also get the negative aspects of, you know, from working with colleagues as well, like their stress that does rub off on you, doesn't it?" – Karen. Participants were also escaping from their own feelings of stress "I think as I got older, I felt the need more for outdoor space and maybe when I did less, I didn't think it was necessarily like rooted in me I sort of found it as a way of managing my own mental wellbeing" - Martin.

Participants were also escaping from affordances within the indoor space which act as reminders to participants that they are at work. For instance, Julie said, "…just being away from the desk sometimes I think I don't know. Sometimes I sit at my desk for like an hour trying to think of something or I'm trying to do a bit of work, and I just don't end up doing anything". Escaping the indoor office space was also related to (the lack of) feeling enclosed (e.g., "I guess you could say liberating because it does liberate you from the

four walls…it's more expansive… you're in the open air, you're in the open space. You're in you're in a greater space than just contained" – Fred).

Furthermore, being away from technology also featured for some participants. This aided concentration and focus on a particular task "I'd probably say I'm a little bit more productive and I'm definitely a lot more focused because I don't have the distractions that I have around the other tablets and technology and physical toys and stuff" - Graham. Whilst this immediately discounts some tasks from being completed outside it was also found that the tedium of some tasks can be lessened by being away from an inside space "And, you know, work can be boring. You know, it can be really exciting, can be really fun. And it can be, but it can be boring. And I don't get bored when I work outside no matter how heavy the workload is, I don't feel bored when I'm outside" – Tom.

5.2.3 Extent

Next, we consider extent which Kaplan (1995) describes as an outdoor space which is cohesive with previous experiences within nature (such that there is no element which requires focused attention), and which provides an opportunity for a connection with nature. Within the interview data it emerged that for some participants there was a clear connection to nature, and this was linked to how they could work, "So I've always been an outdoor person, both in terms of my sort of history and my hobbies. For me, that's where I can get the clearest thoughts about the things I want to do and the things I need to do" - Andrew. Another participant was clear in how drawn they were to elements of nature which included the vastness "I definitely feel a little drawn to that. Luckily, we've got some great landscapes around here, so, I give the example of if I'm indoors, one of my offices faces a couple of hills there, so if I'm feeling stressed out, I'll I'll make an excuse to have a task that involves that area and you will go to that. And I guess that's repeated outside as well. Like if I'm staring to the distance, that's where my focus would go" - Jason. Both Andrew and Jason were in managerial positions with their organisations and were more likely to be going outside for meetings which involved creative thinking than any other task. In addition, the sense of awe

and the extent of nature aided one participant to re-assess their emailing tasks "Yeah you see how big the world is and then you think come on just get this email done, you know, it's not that big" – Malcolm.

Memories of time spent in nature can also be linked to extent as this creates the connection between two moments with nature as the influence "Oh, I think that's where it stems from. Yeah. My dad had an allotment, so in the summer we would be down there constantly, so he'd be working on his allotment, and we'd just be outdoor the whole day playing around there so yeah, it definitely stems from that" – Kathryn. In this instance, Kathryn was able to make sense of the influence for enjoying working outside now because it was cohesive with time spent outside as a child.

5.2.4 Compatibility

Kaplan (1995) describes compatibility as a reduction in the amount of effortful functioning required due to the feelings from being in, and the features of, nature. Kaplan and Talbot (1983) also explain that any an outdoor space needs to compatible to our needs at that point. In other words, we have expectation of what the outdoor space will be like, specifically if we know that it will be a pleasant experience and will allow for working then no further information is required (directed attention) to understand the space. This concept emerged in my data: One participant described their experience as "… overall I think my expectations, I've done enough times now that I know what to expect or try to prepare" - Ted. In addition, there can be an expectation that being in nature will bring about a positive feeling such that the experience which takes place does not require as much energy "I think it's probably to do with my sense of because I've made that decision to take it outside I think I've put myself into a different mindset to start with. I've almost, you know, kidded myself to some extent, you know, I'm prepared, I know, this is what I'm going to be doing, I know I'm not going to be disturbed during an allocated period of time. I can focus…" – Oliver.

An expectation of compatibility may be the result of having done this before or of memories of time spent in nature which is subsequently re-enacted when people take their work outside. Maria describes her feelings at the

moment she opens the door to go outside as "as soon as I open the door, it comes at you. I almost feel like, oh, okay, I can have a bit more inner peace I can go outside and feel a bit more calmer now". Mary recalling memories of going outside to do during the school day, "I wonder if some of it goes back to being in school… it was such a treat when you were taken outside for a lesson and …just that, fabulous feeling of going outside. You sat on grass… You touched the earth… and maybe it goes back to childhood because that was a lovely thing. And just get this it was like an escape".

5.2.5 Fascination

Fascination is the element which is thought to be the most related to feelings of restoration through improved directed attention fatigue. According to Kaplan (1995) nature does not demand of our attention (this is deemed to be a soft fascination) which in turn allows for increased opportunity for meandering thoughts. This is seen within the interview data "You don't always have to be writing things down. We have thinking time, why feel guilty if we just lay outside and plan what we're going to do? And think situations through or problems are opportunities. It's not a bad thing is it" - Mary. A clear head was also experienced which was related to restoration "I guess sometimes I get like I don't know, like stuck on things I can't, like, sometimes I can't think properly, I guess, when I'm at my desk. So, I have done it a couple of times. If I work from home, I've gone out in the garden, and I find that I've been able to like think a bit better" - Julie.

There are also certain tasks which are conducive to opportunities for soft fascination and reflection. Most notably these would include creative tasks and meetings. Jason has a managerial role and describes his experience of leading meetings outside "And so rather than do our bog-standard meeting in a, in a dreary meeting room, we, we did it in a local park and that went on a very gentle walk around. So, whilst it was covid related and the main reason really to try to, to repair that fractured, fractured team relationship. Really, I'd say that was the main reason. And just take some of the stress off really just to find a more relaxed way where where people could perhaps be a bit more creative…". Denise also suggested that "you look at life differently from a

different angle, you know, because you know, you are seeing things that have been there all the time, but you don't notice it. You know, until you are out there, and you know, things like, you know, things like that, it kind of gives you that er what's it called erm. What would I say? It gives it you know it gives some more ideas".

Soft fascination therefore appears to help restoration alongside the other three elements of ART. However, the well-being findings were not exhausted at this point and beyond well-being related to ART other factors were also influencing the experience of well-being. Location autonomy is a new area of interest and has been identified as interesting and relevant to pursue as part of the experience of the participants because of the implication that it had in relation to the phenomenon of taking office work outside and well-being.

5.2.6 Location autonomy and well-being as an extension to ART

Location autonomy relates to the workforce's ability to choose where the best place is for them to work (Spivack & Milosevic, 2018; Wu et al., 2023). We know that the participants in this study were working outside in a combination of both the home and at the workplace (total number of participants working outside at home *n=26* and the total number of participants working outside at home and at work *n=19)* utilising some element of location autonomy. Interview excerpts of this occurring are shown in table 25 (p.140).

On the one hand it emerged that for some people the ability to use location autonomy was made explicit by the organisation whereas on the other hand for some people, this was not the case and was either implicit or not discussed at all. First, we will look at how explicit management encouragement of the use of an outdoor space was experienced to help further explain why location autonomy can affect well-being when people take their work outside at the workplace and at home.

Some participants noted that their managers knew about and were happy for them to take their work outside, and this generally resulted in positive feelings of well-being. For instance, "So in terms of my line manager, *[they're]* very relaxed, like in terms of autonomy…. very much like, I trust you to basically do your work. It's more outputs focused. So, you know, *[they're]*

not someone who monitors whether I'm at my desk 9 – 5 for example… So erm *[they]* advocate well, you know, being able to develop ourselves the best way and do work the best way we feel" - Patricia. A further participant commenting "…the team I work with erm we've got like a very good relationship with managers and things, and they're very encouraging of things that will help kind of mentally or make you work, make your work more comfortable. So, it is something that, you know, if we want to do it, they're very encouraging of" – Fiona.

Table 25. Interview excerpts - location autonomy and well-being.

Participant	Interview excerpt
Patricia	"So from a mental wellbeing is great and then obviously from a physical wellbeing, I think, you know, being able to choose going outdoors like I said, you know, getting light fresh air, you know, getting more vitamin D, like all those kind of things do help rather than being, you know, not having that choice to be able to be outside".
Jack	"And here, if I'm working in the garden erm I feel like I'm able to just get things done in the way that I need to get them done or organise them in such a way as to to be more productive and happy with both the method and the time frame in which I'm working".
Lucy	"It's, I guess, an opportunity that makes me feel like I have some personal freedom over my work, that I'm actually not a machine and as a as an employee. And I think it's something that allows me to, I guess, not feel micromanaged to, to know that I am in control of creating my own possible best workspace".
Fiona	"So it does make me feel fortunate that I'm in a position where I can work outside, but also because of how I've worked in the past and how I work now. I can see absolutely where there are some tasks where I know being outside is going to be beneficial not just for me kind of mentally and creatively, but I know that the way that I will focus on it actually means I'll be doing a better job than if I was sat in an office kind of 8 hours a day".
Mandy	"You know, I have I have the ability to be able to do this to take my work outside. And I think that's kind of. It's a positive thing for sure. It just helps with mindset a bit".
Tom	"Erm, for me, it's, is an opportunity to do something I don't really want to do in an environment that I love being in. So it, it gives me the opportunity to, to tick one of the boxes I have to tick whilst being in the place that I'm going to really enjoy".

Management endorsement of location autonomy was also described in terms of the relationship between the management and the workforce, "…if you've

got a good relationship with your manager, which I really have, *[they're]* very trusting of what I do, I have objectives that I have to meet and as long as I meet those I mean… doesn't care where I'm doing it or how it how I'm doing" – Robert. John said, "I've got a very good relationship with my boss, and you know, *[they've]* been very supportive of me… as long as you get the work done … doesn't care where we're doing it and that's really how it should be. At the end of the day, I'm not going to take the mic you know, I do have some pride in what it is that I do as long as I'm comfortable on hitting the deadlines, and then, you know, I'm managing everything else in the same time I'm comfortable and *[they're]* comfortable".

Thus, feelings of trust between the management and the workforce appeared to encourage location autonomy. Interestingly, there was no mention of participants being explicitly permitted/not permitted by way of any policy/formal management guidance to take their work outside. It appears that some people's perceptions of what space was viable changed during Covid-19 with the outdoors becoming the social norm for some: Katie said, "I think probably it was to do with COVID. We couldn't meet inside in certain numbers, so we had to meet outside… we probably always…worked a little bit outside… but certainly the kind of more like set up with the picnic benches and things like that for people to work on was brought out during COVID and then it's just carried on from then". Importantly, the aspect of trust to use location autonomy (even when the use of outdoors has not been made explicit) was a significant indicator of well-being because the workforce could interpret this as a management team/organisation who supported and cared about their well-being shown in table 26 below.

Table 26. Interview excerpts – support, location autonomy and well-being.

Participant	Interview excerpt
Joanne	"So I completely decide my work schedule and what I'm doing on specific days and things like that and. Yeah. And they do care about us having a good sort of work life balance and kind of wellbeing as well".
Oliver	"But, you know, I'm not saying it's perfect, but largely, I know I'm happy with my work, I enjoy you know the organization, I feel supported".
Hugh	"If I feel trusted to work where I need to work, then that's, you know, that relationship that I with the employer is they want, they genuinely want me, they generally want the best version of myself that I can be. And therefore, I'm quite happy to make compromises elsewhere maybe because I'm actually the best version of me, you know what I mean? It's hard to articulate it better than that really it does come down to the element of trust because that trust enables me then to be the best person that I can be, because I know I've got the freedom to be able to just, you know, disengage. Take a moment. Work in a an environment that's going to soothe me a little bit, ease some of the sort of ills, as it were, and ultimately I'll benefit from it but the company's going to benefit from it aswell because they gain a better version of me".
Evelyn	"And the thing is, like I said, they, they have the spaces at their offices for you to work outside. I work for quite a big large corporation. So they very much push all these kind of different initiatives forward to do mental health and that kind of thing".
Katie	"And I feel I mean, personally I feel more productive. So, you know and I think probably management recognise that in people actually it can be a really positive thing for the, for the workforce in general type thing".
Fiona	"I know that it might not be the same for everyone, but as a team, my line manager is fantastic. And you know, if I, if I was to say, I just want to get outside for an hour with my laptop. Yeah, they'd be completely understanding of that and supportive of anything that will kind of give us a better working mentality or even like just to appreciate the sun".

Location autonomy has been identified within the interview data as a means by which positive well-being can be experienced through the mechanisms of management endorsement that location autonomy includes outside space, feelings of trust and of being cared about and supported. This is shown in the model below (fig.3).

```
┌─────────────────────┐
│   Management/co-     │
│   workers/clients    │
│  approval of working │
│       outside        │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│  Location Autonomy   │
│  including outside   │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│  Trust to use outdoor│
│ space appropriately  │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐
│   Workforce feel     │
│   supported by the   │
│    organisation      │
└─────────────────────┘
           │
           ▼
┌──────────┐  ┌──────────────────────┐
│Take work │  │                      │
│ outside  │→ │ Well-being experienced│
│  when    │  │  by the workforce     │
│appropriate│  │                      │
│ to do so │  │                      │
└──────────┘  └──────────────────────┘
```
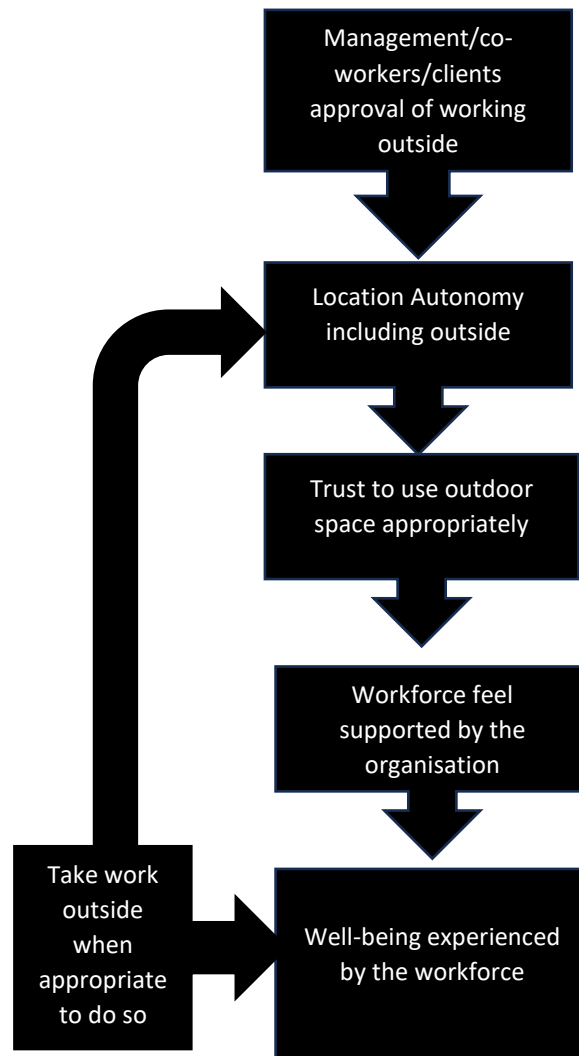
Fig.3 Well-being experience of participants who felt they had encouragement from colleagues/management to take their work outside.

On the other hand, as indicated earlier in this section whilst people exercised location autonomy this was sometimes done without management/colleague knowledge shown below in table 27.

Table 27. Interview excerpts - taking work outside without management/colleague knowledge

Participant	Interview excerpt
Maria	"I don't really think anybody's really had the discussion at work like, am I okay to work outside? And there's never been sort of any framework on that in the way you do when it comes to things like, you know, working in the office".
Brian	"… it does get a little bit out of personal control in some ways because, you know, I don't know if I change jobs or if, you know, my manager changed or something and they were more or they were less flexible about that, it would maybe mean that I couldn't. And I would miss it".
Julie	"I haven't discussed it with any of my managers. No managers have discussed it, but I don't think it would be a problem. I think their the main concern is that we get the work done. Like the work so yeah. No one's ever said that I can or can't work outside".
Martin	"….it's not really something that's discussed that openly I don't think. I think they would maybe reasonably assume that I do er I don't think we've ever really had a conversation to say, yeah, this is what I'm doing I'm why I'm doing it".
Caroline	"It's a bit of a grey area at the moment, so they're not officially bothered where you do your work, but they're still trying to work out how they want. Ideally I don't want to, because I do want to do the outside work. So after COVID for instance a lot of people did not go back to the office there are different offices in the UK, so they're still trying to work out how they want us to do things. So officially, nobody says anything, but unofficially that's a bit of a different story".
Mike	"I wouldn't be like I wouldn't publicise or you know put it on the teams chat that I'm going to sit out in the garden. I would just do it erm. Obviously in the laptop battery life, it would be common to come in and every now and again and charge it and stuff like that. But yeah, it's not something I would even really feel the need they can stipulate against it I would just kind of do it organically".

We see in these excerpts that people feel somewhat justified in taking their work outside even when this is outside of managerial/colleague knowledge. However, some participants noted that this could lead to negative feelings, "I don't know why that should be, maybe that you feel like you're being a bit naughty. You know it's not like real work. Maybe this is it" - Mary. Similarly, Anne said that, "Yeah, it all just feels a lot more informal, which I think is where the sort of anxiety of somebody catching you. Not that you're doing

anything wrong, but that's that's definitely something that's less. Like you're breaking the rules almost".

Moreover, some participants personally associated working outdoors with shirking away from work tasks as they moved away from the social norms of working inside. For instance, Lisa said, "I think the owners most likely would be actually be okay with it. It just feel very slightly like shirking off still". Another participant added "Erm I think what would make me more inclined to do it is say I saw my CEO or senior boss doing it and almost then you'd feel like you've got sort of the tick to do it. Erm the fact that I haven't it makes me a little bit more wary and apprehensive about doing it and even though I think you know you get as much done as potentially as you would do indoors" – Maria.

In addition, some participants were concerned with what colleagues thought about people taking their work outside. For instance, Graham said, "I don't think it's normal. And when I'm sitting outside and everyone else is in the office, I feel a little bit like I shouldn't be doing that"; while Gordon said, "I can certainly see how it can be perceived by perhaps other people in different buildings when they see other people out chatting, you know, not looking like they're being particularly productive that they are sort of taking the mic a little bit. But actually, in my experience a lot of the best ideas have come when we've been outside". Similarly, Moira noted that "People are recognising the need for green space and just fresh air and sunlight, but it's still there's still a perception I think that people that people would slack off basically" and Donna stated "I guess that's always the concern. If someone calls you and you're on the screen and it's, you know, you're sat there next to like an olive tree, with erm you know whatever. It does look a bit like, like you're just chilling".

Some of this judgement seemed to be based on negative historical views related to home working; for example, "My managers' never said anything, but I think the perception, it's kind of like the perception of working from home a lot of people think it's still unprofessional, even though, you know, a lot of studies demonstrate that the outputs can be as or more productive. But

I think the perception by people can still be that actually if you're working, you're too relaxed and are you actually working" – Patricia. Martin said, "I think it would be viewed slightly negatively certainly by the people who used to see working from home in a negative way. But you know, you because the arguments are always you don't have the same access to the resources you need to do your job. And, you know, I would imagine that that mentality hasn't entirely gone away. So erm I think we probably would face a challenge from yeah I'm certain people like that".

As such it appears that location autonomy is not always available to people, but when it is available, and when there is management knowledge and trust, it can aid well-being. On the other hand, a lack of management knowledge, or personal or collegial negative views, appears to increase negative feelings of well-being (e.g., guilt and feeling naughty) as shown in the model below (fig.4).
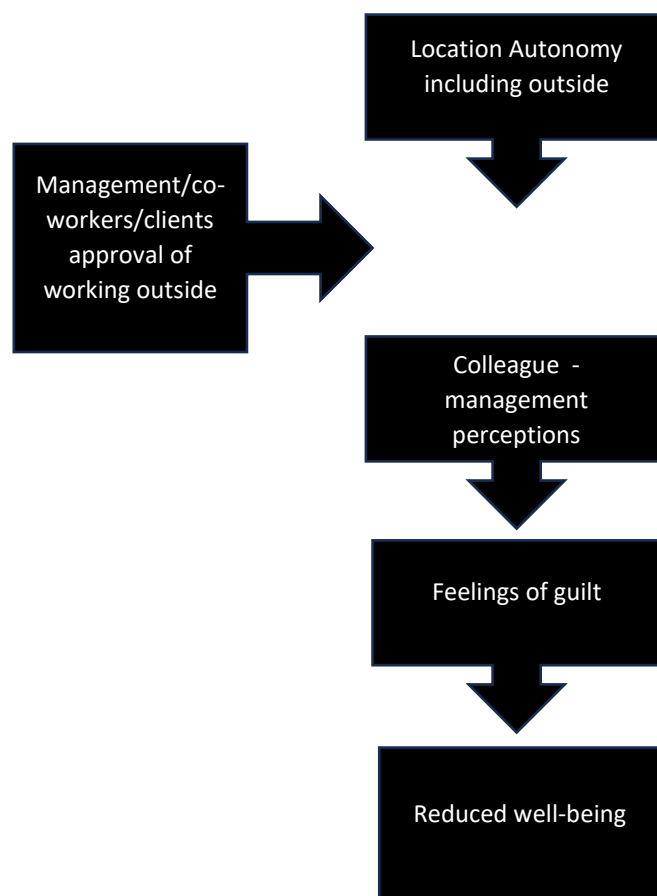
Fig.4 Location autonomy moderated by management/collegial approval of working outside and negative well-being.

Within this section the addition of location autonomy (which includes outdoor space as a viable space within which to work) and the connection to well-being has been shown. Thus, well-being due to the option to take action and use location autonomy is determined as being positive when there is management knowledge, personal acceptance, or colleague support and negative where this is absent. How the participants experienced this knowledge or absence of knowledge was determined in the participants' feelings (e.g., supported or guilty).

5.2.7 Productivity

Previous research has focused a lot on the well-being benefits of being outside in nature (e.g., Perrins et al., 2021). Well-being is generally explained through ART (Kaplan & Kaplan, 1989), micro-breaks (e.g., Largo-Wight et al., 2017) and the energising effects (e.g., Klotz & Bolino, 2021) which are all about being happier and being refreshed but I found that taking work outside also affected productivity. I knew that many people were taking their work outside based on the survey in study one (chapter 3 sub-section 3.2, p.37) so, to learn more, I chose to interview the people who reported feeling productive or focused.

Within the interview data I found three groups of people within the productivity theme. This was because there were some participants who reported being task focused, some who were mini micro-breakers, and some who were well-being focused (see fig.5, p.148).

The participants who reported themselves as task focused were not distracted by the natural environment, but they still experienced feelings of well-being. The mini micro-breaker participants were generally focused on their tasks but took micro-breaks to connect to the natural surrounding environment. Lastly, those who felt well-being focused were focused more on the environment than working on their task. Being able to distinguish these three groups was an important step forward theoretically because ART suggests that nature contact restores fatigued directed attention to the extent that people enjoy an energised approach to working <u>after</u> the exposure: I found that directed attention was being maintained at varying levels <u>whilst</u>

people were outside and while still receiving the well-being benefits of being in nature.
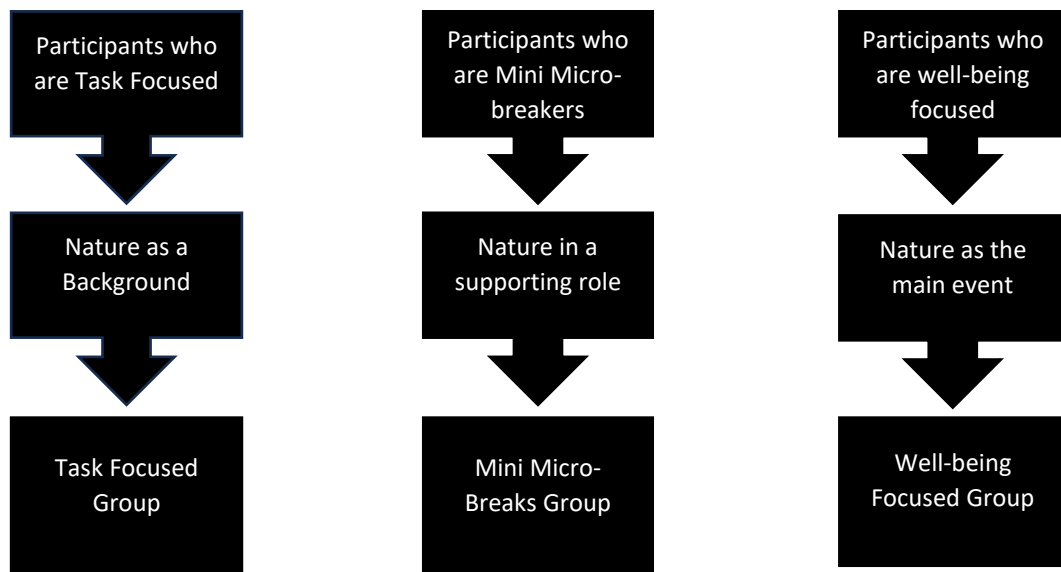
Fig.5 Model to show the three productivity groups in Study three.

The differences in the experiences of task-focused, mini micro-breakers and well-being focused participants are shown in the comparative excerpts below (table 28). It appears that the differences come from a perception of the relationship between nature and being productive. For example, task focused participants describe a causal relationship between nature in the outdoor space and productivity, mini micro-breakers describe an independent relationship between nature in the outdoor space and productivity, and the well-being focused group describe a competing relationship between nature in the outdoor space and productivity.

Table 28. Nature effect on the three productivity groups in Study three.

Task Focused	Mini Micro-breakers	Well-being Focused
"The thing is that the two are interconnected you know so there's this, you know, you're getting the same sort of hits in respect to dopamine or whatever when you feel as though you've completed something, you know, when you've completed a task, you've done well, whatever it may be, you're just getting you know, a few extra icing	"I think so. I think it's almost like a chance to order your brain and sit back and just give it a moment of proper thought rather than complete disconnect from what you doing so you're just having a breathe you know, taking your guard and whatever. But you're still thinking about it. And it does just give you maybe a bit more	"Erm and sometimes as well, I kind of kind of think, Oh, I don't want to do any more work now I've sat outside I feel a bit like I'm on holiday, but I think that's more the weather" - Fiona

and cherry on the cake in that respect, so yeah, it works on a number of levels where you're enjoying the environment, you're enjoying that freedom. But you're also you're being productive and you know, there's a definite wellbeing benefits around that as well. You know, a lot of stress can come certainly for me personally is when I don't feel as though I'm able to get through the work that I need to get through or not being as productive, you know, concerns, anxieties might start to build. So yeah, they all go together, I think" - Hugh.	headspace to really consider what you're doing" – Anne.	
"You're working but you're sat in a nice, nice place. It's making your mood better erm you getting your work done. It's not like you skiving off from work. So it's it's like a little win at life because you're not being distracted. You've been able to concentrate, you're enjoying the environment. So it's quite pleasurable as long as you are getting your work done. And it is a nice environment" - Malcolm.	"Oh definitely, I think visually and orally, you're hearing and seeing and listening to the sounds but your mind is kind of freed up your mind is thinking about others issues of course what you're working on. Yeah. It's definitely a combination of both" – Oliver.	"I can think of times in the summer when I go outside and sometimes I think, Oh God, this isn't working, because actually all I'm doing is just sitting in the sun and I'm not actually really working" - Richard.
"…going outside means you're continuing with your work. So it increases your productivity and it also boosts your wellbeing. So it's nice. It's got that double aspect that, you know, no one can complain about that" - Katie	"I think I probably am subconsciously so, you know, the tweets of the birds and the insects and all that, you know, all that sort of thing and the smells and everything around you. But I am still very much focussed on my work. But sometimes, you know, I think, thinking it through, I probably I sit up and take things in a bit more than if I was in an office, because an office is a very sterile effectively environment, whereas you know, the outdoor spaces well certainly in the garden there's lots of things going on and a squirrel running around the back fence or whatever and all that and chasing away a cat and all of that" – Fred.	"Maybe it could be the fact that I do feel so relaxed and unstressed that that is then reflected in my work and that was effected in my work being a bit less productive" – Jane.

What we see in the above excerpts are differing experiences of productivity for participants where patterns were emerging in how the individuals within

the groups were experiencing productivity and well-being in an outdoor space. Next, we will look at the individual groups in more detail to understand more about the processes involved towards the types of focused productivity and well-being.

5.2.8 Task Focused

The task focused group was made up of participants who felt that they were predominantly task focused when they took their work outside but who also gained well-being benefit. In total twenty-two participants were allocated to this group. For these participants, directed attention was maintained and the restoration of fatigued directed attention occurred separately; (e.g., "So yeah, I wouldn't get me laptop and go right it's time to go and watch the squirrels because … they make me happy you know, I mean it's, it's an afterthought even though it is a nice afterthought if you know what I mean. It's, it's part of being outside that you get those feelings. I don't go and seek those feelings" – Malcolm).

One possible explanation for the low level of distraction felt by this group may be related to their prior nature experiences which allowed for expectations to be built. One participant described this expectation as, "I think it's probably… because I've made that decision to take it outside, I think I've put myself into a different mindset to start with. I've almost, you know, kidded myself to some extent, you know, I'm prepared, I know, this is what I'm going to be doing…" - Oliver. When this excerpt is pulled apart it is revealed that there is an expectation to feel a certain way (e.g., the compatibility element of ART) and that the space is a good fit, but that they additionally have a work-goal expectation (e.g., they are primed to expect task focus and achievement).

Participants in this group often had a specific work plan, "So it's a case of planning your workload and knowing what you've got on your calendar for that day to see what you can fit in from working outside" – Nick. Patricia adding that the specific work plan also related to the timeframe available to them, "So what I tend to do is think about actually is how is my day set up? So, if I've got a chunk of time where I am concentrating on a specific piece of

work and I'm not necessarily interacting with someone for an elongated time on like Microsoft Teams for example, then I tend to take my work outside…". We know from the survey in Study one that people will work outside for varying amounts of time within the range of 10-120 minutes (chapter 3, sub-section 3.2.2, p.38) and so hybrid working, work scheduling and the additional decision making required to manage this way of working within a given timeframe is understandable.

For some participants the experience of changing the work environment and taking work away from indoor distractions was important: Daniel said, "I think it's just the sense of the space. And to be honest, there's no disturb, you know, there's no-one to disturb you to distract you because what is I basically have a senior function role and I'm always getting bombarded with questions, literally". Katie adding, "I find I focus much better outside, so actually you can kind of hear these sounds in the background, but they don't intrude in the same way as someone's voice talking on the phone inside".

In essence, the chance to remove oneself from people and technology which one may feel compelled to engage with (e.g., ART and being away physically) and be immersed in nature which they do not have to engage with (e.g., ART and soft fascination) allows them to be focused productive (maintained directed attention) and well. Furthermore, the nature elements within the outdoor space were sensorially experienced as a background ambience: Nicola said, "…that it's in the background for me and the birds in the background and it's nice to have that ambient background noise and in some ways it's nicer than silence…". Ian added, "To be honest with you it barely registers as a sound it's not something that I notice, yeah".

Overall, the experience for this group in being task focused when taking their work outside is explained partly by way of nature being the backdrop within the space. Whilst there is some similarity between this sense of nature as a background feature and ART (in particular being away, soft fascination and compatibility) the findings are substantially different because, unlike ART, restoration is not the focus whereas maintained directed attention is. The results indicate that being productive came from an ability to focus on their

work through maintained directed attention but that this was combined with gaining the well-being benefits of being outside in nature. Similarly, being physically away from the indoor office space and the associated noise and distractions is aligned with ART. However, mentally these participants were not being away from their work stressor, they were being present with their directed attention so that they could be task focused in a space which allows them to also feel well. My findings suggest that the positive effects found by these participants was based on an interdependency between working and nature: the task was the right task to work on while outside and working outside helped this task to be accomplished more than if they continued to work inside. Similarly, being outside in nature reduced the distractions that would have occurred inside; and focusing on the work outside allowed nature to be a calming backdrop providing only an ambient environment. This interweaving of work and nature allowed participants to maximise their focus on the task while maintaining benefits.

5.2.9 Mini Micro-breakers

The mini micro-breakers group of twenty participants were described as such because they were dipping in and out of directed attention (by way of breaks) and so they were gaining the restoration benefits independently to task achievement. For example, Jack said, "there will be times when maybe you feel sort of mentally like you need to take stock of what it is that you're actually doing and what you need to do next. And so you need to pause. And just, you know, sort of breathe for a little bit. But that's. Yeah, I'd say probably the latter. It's not always I'm not always thinking about work if I'm like, listening to the noises outside. But it does enable me to get back into it. I think those pauses are necessary".

The mini micro-breakers group used their time outside by actively supporting their work focus by way of moments of interaction with nature. This was described in one experience as a mindful experience, "For me, just being in green spaces is good for me. It's just a nice feeling. Stress levels go down, I'm not concentrating on worries. I'm quite present in where I am and, you know, I'm observing where I am" – Tom. They could for instance, enjoy the

feel of the sun on their skin, "I quite enjoy the feeling of having like a ray of sun, like having the sun in my body" – Lucy, or hear the birds singing, "I love the noise of birds and bees and I think that itself is really relaxing and tranquil… And the fresh air I think that's huge in terms of concentration" – Maria, but it was the degree to which they intermittently interacted with nature on-going which determined the mini micro-break status whilst maintaining some level of task focus.

The experiences of this group are seemingly reminiscent of micro-breaks and are termed as Mini micro-breakers in that they are taking fleeting, recurring mini breaks which intersperse the time spent outdoors working. What occurs in these fleeting moments are pockets of restoration "I think with the feeling on my skin I will maybe even take a moment to take that in. I don't think it affects my work in terms of like I can't focus on my work. I think it actually helps my work to take regular breaks just to breathe and just to like, absorb that feeling, which makes me again, gives me a feeling of I'm looking after myself. I feel more relaxed. I feel I can do it. I'm not like, just burned out" – Lucy. Additionally, clearing of the mind was experienced "I think so. I think it's almost like a chance to order your brain and sit back and just give it a moment of proper thought rather than complete disconnect from what you're doing so you're just having a breath you know, taking your guard and whatever. But you're still thinking about it. And it does just give you maybe, a bit more headspace to really consider what you're doing" – Anne. Breathing and air was mentioned regularly "So it's definitely air to breathe to get a breather from the workload and … to feel it on your on your skin as well. And it's just that all the benefits that come with that, yeah definitely pro that, get me outside all the time, any reason to go outside I'm definitely up for it" – Jason. What emerges is space for creativity and a different way of tackling a task "What I do involves a lot of mental stats and sometimes you get to the point where it's just like you can't solve a problem unless you leave it for a second and come back to it…So normally when I go outside it makes me feel calm enough to tackle the problem from a different angle like from a creative perspective" – Harry.

Therefore, an explanation for the mini micro-breakers group as it emerged within the interview data suggested that these mini micro-breaks outdoors were used to actively sustain the experience of well-being in a separate moment to the moments spent working. Harry continued by adding "there's actually two main reasons. One is about freeing myself up for my sense of creativity. And the second is that getting the fresh air just being somewhere relaxing. Yeah. Not office environment or my home workspace, you know, just somewhere relaxing".

Thus, for the participants who were mini micro-breakers the interview data has shown how this is explained by way of dipping in and out of directed attention by way of taking mini micro-breaks. As such there are links to the soft fascination aspect of ART whereby nature soothes fatigued directed attention. This means that there is a level of (semi) focused productivity, but this is interspersed with the breaks which independently supports the well-being benefits.

5.2.10 Well-being focused.

The participants included in the well-being focused group described their experiences as being more about enjoying the sensorial aspect of being outside. As such their focus had become attuned to the environment and this had become more important than the task "I think sometimes it's just too nice. So kind of easy if I'm outside. I mean, I guess it's confidential, but occasionally I might have a beer and towards the end of the day to have a wind down" - Ted. Thus, we see that well-being is being experienced ahead of productivity which puts the outside space and the completion of tasks into competing factors.

There were six participants in the Well-being focused group all of whom described themselves as feeling well-being focused when they took their work outside. It emerged that there was more of a well-being focus than task focus (the opposite to the task focused group) "I would say in the main, sometimes I go outside and … I can think of times in the summer when I go outside and sometimes I think, Oh God, this isn't working, because actually all I'm doing is just sitting in the sun and I'm not actually really working…but if

I'm going out and I've gone out with the purpose of reading a paper that I need to read, then sometimes I think, well, actually I'm not concentrating on this because actually it's too nice a day, you know? I mean, sometimes it can be too nice outside and you kind of get easily distracted by just It's nice outside. So, it depends. Sometimes I will think it's not working as much as I'm enjoying being outside. I'm thinking that it's not working. I'm not really reading this and sort of taking it in properly" - Richard. In this excerpt the competing factors of the outdoor space and work are demonstrated which culminates in the conclusion that the felt well-being is the dominant factor ahead of focused productivity. These competing feelings are also present in this excerpt, "Maybe it could be the fact that I do feel so relaxed and unstressed that that is then reflected in my work and that was effected in my work being a bit less productive" - Jane. Furthermore, motivation to be productive can also be negatively affected "Erm, happier sometimes slightly less motivated to do your work. Although I get it done, sometimes I can procrastinate a little bit" – Helen.

I was unable to find other variables which would differentiate this group to the other two groups. I looked at several different variables which had been hinted at as being important within the interview data and which I then felt may have been factors to help explain the well-being focus further. These included memories of time spent in nature as a child, the constant importance of nature within the interviews, the outdoor space, and affordances and found that these did not provide any complete differential explanations as to why this group experienced taking their work outside as they did. Unfortunately, because this study is a novel approach to this subject area I am unable to fully unpack these areas but I will discuss them further within the Study three discussion (sub-section 5.3, pp.157-168).

Nonetheless, in the same vein as the mini micro-breakers group, the participants were all describing their senses (e.g., feel of the sun, noise of the birds) but it was how participants were responding to the sense activation which was the key to whether or not this became a distraction away from work (e.g., mini micro-breakers) or not (e.g., remain to some degree task focused). So far, the results suggest that task focused participants perceived

nature as a background effect supporting the main focus on work, while the mini micro-breaker participants enjoyed nature in short bursts but also in support of the work task. For the well-being focused group however, the main focus was not the task, but being outside and enjoying the feel of nature.

5.3 Discussion

The findings from the 48 interviews in this study showed that participants experienced both well-being and productivity while working outside, albeit in various ways. This allowed me to gain more understanding about how and why well-being and productivity were experienced and sets out to answer the three research questions, *'How do office employees use outdoor spaces as workspaces?', 'How do people who take their office work outside understand their experience of well-being and productivity'* and *'How and why do people experience well-being and differing degrees of focused productivity when working outdoors?'*

To date, Attention Restoration Theory (ART) introduced by Kaplan and Kaplan (1989) has been the leading theory in terms of fatigued directed attention being restored in nature. In this discussion chapter I will reveal how I make theoretical contributions to ART based on the analysis and results of this study. In brief, I propose that ART can be extended in relation to the elements of being away, fascination and compatibility. I further propose a contribution to the location autonomy and workspace literature where this links to both well-being and productivity. Lastly, I make a practical contribution in relation to the specifics required within an outdoor space to allow the workforce to feel well and be productive. Up until now very little was understood about the phenomenon of taking office work outdoors in the UK. Yet we now know why and how people are using outdoor space to work in and what this means for them, thus enabling recommendations for improving the usefulness of the space.

5.3.1 How office employees use outdoor spaces as workspaces.

I firstly turn my attention to affordances within the outdoor space. The results from this study have shown that office employees use outdoor spaces as workspaces by acknowledging what may be done in the space by way of affordances: In turn, this means that they can focus on a task or enjoy some interdependency between nature and work. This has similarities to the compatibility factor of ART that determines a fit between the environment (outdoors) and the intended use (work). According to Gibson (1979)

affordances within a space are determined as being objects within that space and what action or behaviour a person may feel they can carry out with that object (e.g., a desk/table for leading a meeting from). The normalised indoor office has affordances such as desks, office chairs and lighting to support task performance. In this sense, it may be that the affordances in an outdoor space (e.g., a deckchair) may not immediately afford that work can be done there. Indeed, Baggs and Sailer (2021) question any likelihood of people using a space especially when a space is defined by the affordances which are in it. My research shows that outdoor space may have some affordances which allow people to act and for work to take place there. However, it was also found that there may be a duality in that a picnic bench may indeed afford that some tasks may be done there but in the back of a person's mind it may also be that a picnic bench is where they would normally chat with friends over a drink in an informal setting. This leads me to suggest that where an affordance is present (e.g., a picnic bench) in the outdoor space this may act as a reminder of memories of social events and not workplace meetings. The result could be a felt juxtaposition where memories of relaxation and well-being are met with a need to work and perhaps a moment is needed to adjust to the affordance in line with the work context.

An emerging area which was found to be a further contributing factor to well-being and which is not accounted for within ART is location autonomy. Location autonomy relates to a person's choice around where is the best place for them to work (Spivack & Milosevic, 2018). This has similarities to Sen's (1985) Capabilities Approach which determines that a person's freedom to act on something that they have put value on creates well-being. Furthermore, Ransome (2010) concluded that not only was the freedom to enact as outlined by Sen important, but he also argued that Aristotle's version of eudaimonic well-being (based on the natural reason for doing something) was relevant too. Thus, participants gained well-being because they had placed value (e.g., autonomy) with having the outdoors as a viable space in nature within which to work. Furthermore, location autonomy can also help in part to explain productivity. This is because of the ability to move away from a space where there may be various things which demand our

attention away from the work we are meant to be doing. Where previous attempts to alter the indoor distractions using either avoidance or approach coping behaviours fail (e.g., Appel-Meulenbroek et al., 2021) location autonomy which includes outdoor space offers a potential solution towards productivity and well-being.

5.3.2 Theoretical implications

5.3.2.1 How people who take their office work outside understand their experience of well-being and productivity

The current workspace literature has some understanding of what the physical aspects of an indoor workspace (e.g., open-plan offices: Davis et al., 2011; temperature controls, office furniture: Vischer, 2012) mean for the workforce. Attempts have been made such as Bodin Danielsson and Theorell (2018) to investigate office design for well-being and job satisfaction and yet the implication is that the current workspace literature excludes outdoor space as a viable workspace and therefore lacks knowledge in individual meaning and felt experience within outdoor workspaces.

I found in this study that people experienced well-being when they had location autonomy which was endorsed by the management/organisation because this demonstrated to them that there was trust in the relationship. Trust was an element which Petersson Troije et al. (2021) discussed in their research not in terms of positive well-being but because their participants had experienced feelings of guilt based on a lack of trust that they would work productively when outside. My research showed that experienced trust had the potential to remove the negative feelings of guilt and any associated negative well-being. In addition, in allowing people to take their work outside there were also elements of participants feeling cared for by the organisation reminiscent of empathy in the relationship which is also known to have positive well-being results (Raina, 2022; Bezzaa & Yadari, 2022). To date, the location autonomy literature has not specified whether location autonomy applies to the use of outdoor space (e.g., Spivack and Milosevic 2018; Kossek et al., 2023; Wu et al., 2023). Therefore, I make a theoretical contribution to the workspace and location autonomy literature to specifically

include outdoor space as a viable alternative workspace. In addition, I make a theoretical contribution to the compatibility factor of ART, where continued use of location autonomy to include the outdoors is in part determined by how comfortable people feel about using outdoor space (even where there is a perceived fit which supports the purpose of the use). This may in part be explained by the perceived level of management/organisational endorsement and trust which exists in support of this. This being that people may only feel comfortable to use location autonomy under certain circumstances.

This may be further explained by the space which we inhabit or use, and which may be subject to us transposing our feelings related to that or similar spaces such that this will be the cause of a positive or negative affect reaction. It would of course be wrong to suggest that the workplace and outdoor space is exempt from the scrutiny of feelings and this study has indeed suggested that transposed ideas of the use of the outside has had an implication on its' usage. We know that within indoor work environments "stressors can be transposed" (Vischer, 2007; p.176) based on prior experiences of stress in indoor environments (Mason, 1972) due in part to a lack of control over the space within which people are required to work. In this study the experiences did not necessarily relate to a lack of control related to where people were working but were more likely to relate to perceptions. Thus, the perception of an outdoor space may be subject to transposed stress based on people's own or other people's negative perceptions about working outside.

The results showed that negative perceptions of people taking their work outdoors, either held personally (implicitly) or by colleagues, could influence the experience of working outdoors. We know that flexible working, which includes working from home can be viewed as problematic to colleagues especially in terms of feelings of skiving and others having to work harder as a result (Chung, 2018); this study adds to that conversation by including outdoor space at the home (e.g., a garden). I found variance in the reactions to colleagues' views, from openly discussing the experience to hiding that they were working outdoors. For the most part, negative views from colleagues had not been openly expressed and were described by the

participants as an expression of what they thought their colleagues may be thinking. This is an interesting point of discussion because the projection of negative thoughts placed on the colleagues originated from the participants. It could be that this is an indication of uncertainty that some of the participants feel about taking their work outdoors (based on informal versus formal space, affordances, and memories) but they project their sense of unease onto their colleagues instead. In doing so they offer validity to the external thought of their colleagues by voicing it as their own. This had the potential to amplify a feeling or thought which existed in the mind of the participant and had implications on how people felt when they took their work outside. Essentially, this sits in opposition to the positive benefits of being in nature and location autonomy. This may help to further explain why the feelings of anxiety or naughtiness occur in some participants. This has not been identified in previous theorising; therefore, future work should consider using a psychoanalytic theory lens to further explain employees' fears of negative evaluations which are then used as a negative projection or a potential defence mechanism (Freud, 2014) against potential repercussions.

Being away is one of the four elements within ART, defined by Kaplan (1983) as "At the very least, a restorative environment must give one a sense of being away, both in the sense of change of scenery and also in the absence of the pressures, constraints, and distractions of the everyday environment" (p.327) which determines being away as a physical and mental experience. Furthermore, Kaplan and Talbot (1983; in Kaplan 1995, p.173) stated that an environment can be deemed restorative if "Being away, at least in principle, frees one from mental activity that requires directed attention support to keep going……But continuing to struggle with the old thoughts in a new setting is unlikely to be restorative". Thus, the thread throughout this narrative is the importance of being away to rest the directed attention and it is this cognitive aspect which aids restoration. However, my results showed that within the task focused group being away physically while not being away mentally (and therefore maintaining, not resting directed attention) allowed for productivity to continue and positive well-being to also be experienced.

One possible explanation of the difference within my findings could be based on the process of restoration as depicted in ART. A meta-analysis by Stevenson et al. (2018) and a review by Ohly et al. (2016) focused on the timing within which restoration happens and this is important to note: The well-being focused, and the mini micro-break focused groups were experiencing the traditionally staged approach where focused attention was fatigued, they then go outside (be away physically and mentally) and feel well and restore their attention, then they are productive (or somewhat productive) again. Importantly, the difference in my research was the finding that the task-focused group (who are away physically, but not mentally) were simultaneously productive and feeling well and therefore experiencing a non-staged approach. I did consider the difference between restoration and well-being as an explanation: We know that restoration within ART is linked to recovery from fatigued directed attention and we also know that this recovery is depicted within numerous restoration scales (Pasanen et al., 2018) to include items such as feeling calmer or more relaxed (Han, 2020). This suggests that well-being is experienced as a result of restoration in response to stressors. Indeed, Kaplan (2001) stated "The intention of the well-being items was to focus on the mental states that are assumed to be related to the Attention Restoration framework", (p.524). Therefore, because well-being is oftentimes measured as part of restoration within ART, I took the view that both the traditional staged restorative process (experienced by the mini micro-breakers group and the well-being focused group) and the non-traditional process (experienced by the task focused group) led to the same experience of feeling well related to restoration. The difference in my research was that well-being was experienced for the task focused group even when they remained mentally active and therefore not away from fatiguing directed attention.

5.3.2.2 How and why participants experience well-being and different degrees of focused productivity when working outside?

ART determines that nature is predominantly a soft fascination (e.g., ripples on a pond) which gently supports our attention, but which importantly allows for contemplative thoughts (Kaplan, 1983). Thus, because we are not putting

effort into this exchange, directed attention which may be fatigued is restored and as a result there is improved well-being and ability to re-engage with things demanding of our directed attention (e.g., work tasks) after nature exposure.

The mini micro-breakers group follow the expected results based on soft fascination within ART (Kaplan & Kaplan, 1989) in that moments taken where nature holds the attention were restorative and giving of 'mental bandwith' (Basu et al., 2019). This allows for thoughts and ideas to be processed within the moment and a new view to be taken once the work is resumed after the mini micro-break. Within the data these mini micro-breaks were revealed as short snaps of time. In 2015, Lee et al. found that a 40-second view of a green roof from an indoor office was enough to afford both restoration and then task focus afterwards. Whilst the time of the mini micro-breaks within my study were not measured, it was noted that participants referred to these mini micro-breaks in terms of seconds in the singular, signifying a dipping in and out of directed attention and restorative attention. This had the effect of positive affect and task focus being experienced not simultaneously but which could almost be described as a flat lining of psychological experience such that neither the directed nor the restorative attention was fighting for attention as they sat in support of one another. These findings are aligned to those of Lee et al. (2017) who found both positive restoration and task performance when micro-breaks were taken with a view of nature.

The well-being benefits of taking time out in nature are previously well documented within the environmental literature (e.g., Sadick & Kamardeen, 2020) and these include references to for example, walking in nature (e.g., Wagenfeld et al., 2018). Within this study the data showed that the well-being focused group were fascinated by nature and the associated well-being benefits to the detriment of the tasks they had taken outdoors. This appeared to have some linkage to the main reason they had taken their work outside: namely nature because this would offer them the best opportunity to feel well where task completion was secondary to the well-being experience. This led to the consideration that the overriding focus was on the experience

of feeling the weather on the skin (haptic sense of perception: Bloomer & Moore, 1979) such as the heat of the sun, where it could be argued that this group are engaging with nature in a manner of "constant stimulation" (Pearson & Craig, 2014, p.1) reminiscent of hard fascination. Previous research has shown how elements of nature indoors can be a distraction against productivity (e.g., Larsen et al., 1998) due to sensory overload (Adachi et al., 2000) and it could be that due to the stimulation or sensory aspect of how nature is being experienced this then becomes a harder version of soft fascination requiring of directed attention. This means that their experience sits somewhere between hard fascination which is demanding of attention with little room for meandering thoughts and soft fascination, which is gently interesting, but which supports reflection.

The task-focused group were task focused but also felt well when they worked outdoors. This is different to soft fascination which advocates that people can feel more restored to re-focus on their work after nature contact. The participants in this group described one of their main reasons for taking their work outside to be related to task completion thus, they maintained their directed attention outside to remain productive. This was not to say that going outside diminished their positive affect experience; perhaps the expectation to feel well outside based on previous experiences (Robson, 2022) acted in a similar way to that of a placebo (Beecher, 1955) where going outside predicted a positive outcome irrespective of this being to carry on working. An alternative explanation is Place Attachment Theory (Scannell & Gifford, 2010) where the physical dimension (e.g., the reason why a space is important) allows people to build an emotional bond with a place which feels significant (Lewicka, 2011). It seems likely that an expectation to feel well when outside was enough for this group to psychologically bring forward the emotion attached to a previous experience outside and that this in turn allowed them to keep their attention focused on their work and not on nature leaving any fascination with nature in the background.

Previously, Joye and Dewitte (2018) argued that the ART factor of fascination remains under explained which is problematic given that fascination is the key element which underpins restoration. My research

provided me with an understanding of why participants could be focused and productive when they took their work outdoors: This was explained by way of a sliding scale of fascination determined by the reason they had taken their work outside and how much interaction the participants had with nature. The notion of nature which holds our attention such that we may have a clear mind which results in restoration and feeling well was shown to be true on one level (mini micro-breakers). However, it can also be determined that collapsing into the benefits of nature immersion was found to be detrimental to work productivity and focus (well-being focused), whilst no interaction with nature saw results of focus and productivity and restoration (task-focused). Based on the capability of nature to restore depleted cognition (Kaplan, 1995), people reporting that they felt focused or productive whilst also feeling well was a surprising finding within this study. This is where my research has developed my understanding of fascination and where I consequently make a theoretical contribution by way of an extension to the fascination factor within ART. The extension to fascination sees that where there is a lack of interaction with nature well-being is still experienced even when directed attention is maintained as people remain working. Termed 'expectant' fascination, this explains how previous experience of time spent outside in nature can create an expectation such that no fascination with nature is required in the moment leaving the person able to direct all their attention to their work. Furthermore, I add that nature was experienced as a 'harder' soft fascination for the well-being focused group such that the focus on nature became demanding and yet there was space for reflective thoughts to take place.

5.3.2.3 Interpretation of participants' experience of working outside

Given that within this study there has been some clarification regarding how participants experienced working outdoors (e.g., well and productively) the detail behind this is still open to some reflection. Within the data there were hints of other things going on which led to my thinking that there could be a juxtaposition of how people view and think about outdoor space due to how the space is used and what is in the space. This leads me to consider the aspect of formal and informal space. Office space is normalised as being an

indoor formal office space whereas outdoor space is primarily reserved for social events, exercising and sporting activities and in this likelihood be determined as an informal space (Twedt et al., 2016). This means that outdoor space is a contradictory space as termed by Lefevre (1991). In other words, there is a contradiction of usage, emotion, and attachment between the two spaces which may be deeply held within the psyche of many individuals (e.g., formal vs informal). Thus, a change to working outdoors may throw up opposition simply because the action taking place (e.g., work) is not normalised within that space. This may have an unconscious bearing on how people 'are' in an outdoor space. Indeed, my research showed how people could feel 'naughty' or 'guilty' when they worked outside, and it could be that this was because of the contradictory space experience.

This notion of outdoor working being a contradictory space may also explain why it is useful as a space for creative thinking, such as meetings. For instance, where meetings were held outside perhaps this unconsciously put people at ease by flattening the hierarchy and increasing creativity and engagement. There is seemingly a more informal feeling for people because the emotional response and the attachment to the outdoor space is experienced as being informal and is thus used informally.

In this sense there is a mirroring between how the space is perceived (e.g., informal) and how people can then be in that space (e.g., informal). It could be that the cues which we rely on to help us restrict or give free rein to our behaviours are read correctly and this creates an opportunity to think differently in relation to the work tasks chosen to do outside. There was some talk within the study around people feeling that they could be more themselves in the outdoor space determining that when people were indoors, they were perhaps wearing a formal work mask.

This finding relates to the compatibility factor within ART, which suggests that when people know what to expect from an environment, they do not need to engage directed attention to make sense of it (Kaplan, 1995). However, the contradictory aspect of the space leads me to question how people can take their work outside into an environment which they may feel

is more of a social space but be able to distinguish that they are predominantly going to be alone and be working. So how do they make the leap to feeling well when there is contradiction happening and why is there seemingly no delay in the feelings of restoration due to the contradiction/juxtaposition? One possible explanation may reside in memories of time spent in nature which are somehow strong enough to override any need to investigate feelings related to being restored when outdoors. We know that memories of time spent in nature with other people as a child can affect how people connect with nature later in life (Pritchard et al., 2020) and it may be that this is reminiscent of classical conditioning (Pavlov, 1906) where other people are no longer required for the felt sense of relaxation – the environment is enough. This also allows me to reason that there is an increased opportunity to expect to feel well when going outside such that the fact that a person may also be working outside is irrelevant within the context of feeling well due to the strength of feeling of restoration previously enjoyed.

The relationship to work changed for the management cohort within this study such that, in addition to the well-being and productivity gains, they also felt that the lack of affordances in the outdoor space encouraged a relaxation of hierarchy. The affordances within a space can act to remind people of their roles within an organisation (e.g., an individual office, a boardroom table: Billett, 2001). These affordances change when working in an outdoor space and are replaced with informal seating for instance. Certainly, the image of people gathered around a picnic bench or gathered on the grass, is a very different image and experience compared to that of a meeting held inside. There were eight management participants who felt that when they were outside, how they spoke and listened to the workforce altered allowing for more open and constructive conversation. Although the findings are not conclusive it could be that again there is a mirroring component to what was happening where the open space encouraged open communication. This has allowed me to make some headway into the current understanding of the experience of taking work outside.

To recap, this study makes in-roads into understanding how people use outdoor spaces to work in and the well-being and productivity experiences of those who do so. My research makes theoretical contributions to, and extends our knowledge of, the ART factors of fascination, being away and compatibility.

In addition, my research adds to the location autonomy and workspace design literatures by demonstrating that outdoor space needs to be included within this topic as a viable workspace.

5.3.3 Practical implications

I found that management endorsement of location autonomy (specifically autonomy over working outdoors) was an important component for ensuring well-being and productivity. As such there is a call for management and organisations to effectively lead the way (Epitropaki et al., 2017) by taking elements of their work outdoors to give the workforce the encouragement and confidence that outdoor space is a viable workspace option. Within this study I showed that there is a desire and a need for location autonomy to include outdoor space. I therefore offer that this study provides a practical contribution to organisations and the workspace literature to recommend that where possible organisations make outdoor working available and acceptable.

5.3.4 Limitations

There are four key limitations to this study. The first relates to the participants who took part. Essentially the participants took part because they had taken their office work outdoors at some point and as I was exploring the experience of taking work outdoors this was helpful. However, it may also have been helpful to speak with people who were made to take their work outdoors (e.g., to attend outdoor meetings) and who did not feel that there was any autonomy in this process. It may be that because this phenomenon was in its' infancy that this would be a rare occurrence to have happened, but the removal of autonomy may have been interesting to explore given the amount of people who are actively taking their work outdoors already.

Secondly, the reporting of negative experiences were limited, perhaps due to the criteria of having taken work outside. There may be a positive bias for the outdoors in the self-selection of participants. This is an unavoidable limitation of this research but does mean that the negative experiences may be under-represented.

Outdoor space usage in the UK can be limited due to the climate which determines the potential days that the space can be used. This was noted as being important to how and if people use outdoor space in this study especially if the affordances of the space do not equate to work taking place in direct sun, wet or windy conditions. This means that the data collection may have been restricted for some participants.

Lastly, it is understood that there are many professions where people do not have the opportunity to take their work outdoors (e.g., factory operatives) and as yet there is no viable alternative for them but to be inside for the duration of their working day. Furthermore, there are people who work from home who do not have access to any outdoor space. This limits the phenomenon in terms of generalisation across the whole population.

5.3.5 Recommendations and future research

There are a range of recommendations I make that include that where possible outdoor space should be made available at the workplace so that those people who cannot work from home or do not have access to outdoor space at home have the opportunity to benefit from this alternative workspace. In time and based on the findings within this study it may be that outdoor spaces which contain affordances and elements of nature (as opposed to concrete car parks) are made available for people to access.

Whilst affordances of the space have been discussed it is not essential that the outdoor space is turned into an outdoor office – simply put the outdoor space is not meant to replicate that which can be found indoors. Keeping the affordances simple allows the space to maintain a blending in with the natural environment which is beneficial for well-being and can be less costly for the organisation to set up. It may be that organisational policy and procedures are put in place to support the addition of the outdoors as an

accepted place of work and in doing so would provide further evidence that to do certain tasks outdoors and feel well is accepted and encouraged. Whilst this phenomenon is not labelled as a well-being initiative HR involvement to support the usage of the outdoor space for well-being purposes may be appropriate. Furthermore, involvement of the workforce where possible in the setting up of an outdoor space would help to gain knowledge about what is important for them (which could be elements of nature linked to memories) and can be included in the space. Despite this phenomenon being in its' infancy in the UK our understanding of the climate would suggest that some element of shading/rain cover would be appropriate. Lastly, I recommend that the workforce are encouraged to use outdoor space for working in (be this at home, the workplace or third workspaces) as much as possible - thus developing further research opportunities which as yet we may be unaware of.

In terms of future research there are so many more questions to ask of this phenomenon than I had the opportunity to do so but it is hoped that this study lays out some knowledge which others may choose to further study or quantitively analyse: This would probably include the measurement of productivity levels outside within a given timeframe compared to the same tasks undertaken (and time) indoors to assess productivity levels and the optimum amount of time people can work productively for when outside. As time passes since the Covid-19 pandemic and as organisations assess their viable workspace, an outdoor workspace may also be helpful if there is another airborne disease epidemic/pandemic where for safety reasons people can choose to work outdoors if they feel unsafe indoors. Therefore, future research to explore location autonomy which includes outdoor space may be helpful to understand if people are then increasingly coming back to the workplace due to the ability to work outside.

I encourage more understanding about how meaning is derived from our perception of nature. The work of Yi-Fu Tuan regarding Topophilia (1974 - which refers to peoples' connection with an environment and what the environment may symbolise) made huge gains in our understanding of the importance of perception (particularly of the senses) of an environment.

Whilst I feel that my research has reported the senses as being important as part of the experience of taking work outside there is more to be understood about the desire to be immersed in and the role of the haptic sense of touch (e.g., to feel) to develop our understanding further.

To support organisational uptake of the opportunity for the workforce and management to take their work outside there is also an opportunity for future research to pull art the nuances found within this study relating to why some people may be more distracted by nature than others. This would be aided by more nuanced understanding of what is deemed as distracting outdoors and why, such that this could inform organisations prior to making this decision.

6. OVERALL DISCUSSION

Interest in the choice of where to work has increased based on the flexibility which emerged because of the Covid-19 pandemic (e.g., Davis et al., 2022). As part of this change people have been making decisions about the best place for them to work (e.g., location autonomy). However, research thus far has focused more on the home/office divide and has not taken into consideration that working flexibly may also include outdoor space. Thus, we are limited in our knowledge as to what, how and why the experience is for those that choose to take their work outdoors. Moreover, although the wellbeing effects of "being" outside in nature are understood (e.g., Stevenson et al., 2018) the effects while working and the effects of nature on productivity, particularly outdoors, are much more mixed (e.g., Sadick & Kamardeen, 2020). In general, there is very little knowledge around both how office workers use outdoor space to work in and their lived experience of well-being and productivity. This encouraged me to explore this phenomenon further and increase our understanding to enable employees and employers to benefit where possible.

Over the course of three studies, I asked participants about their lived experience to answer the research questions of *'How do office employees use outdoor spaces as workspaces?', 'How do people who take their office work outside understand their experience of well-being and productivity?'* and *'How and why do people experience well-being and different degrees of focused productivity when working outdoors?'.* Overall, I found that, like previous research, time spent outdoors was generally enjoyed and there were well-being benefits when taking work outdoors. However, in contrast to the extant theorising, I found that some people were able to be focused on their work while outside and benefitted from *simultaneous* well-being and productivity effects and not just delayed restoration (cf. Stevenson et al., 2018). Moreover, I found that some people did not receive the theorised well-being benefits because they felt guilty about working outside. I will now discuss each of the factors which had an implication(s) on well-being and productivity shown in blue in fig.6 (below) and their theoretical implications.
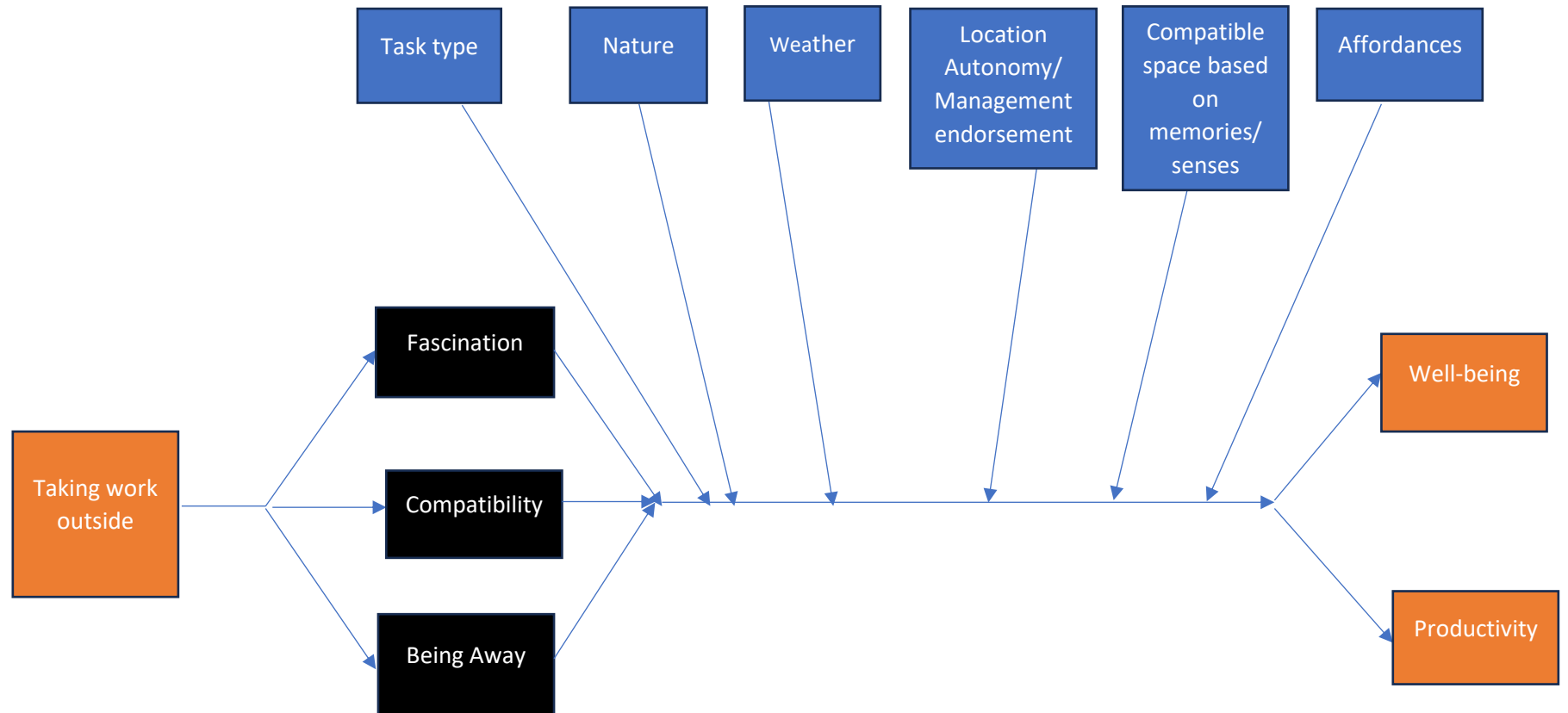
Fig.6 Theoretical model of my research developments to ART. The 'what' action and outcomes are shown in the model as orange, the three factors of ART which I am contributing to and which show 'how' taking work outside can cause the outcomes are shown in black and each of the potential influencers (which can have an effect on the outcome 'when' experienced) are shown in blue.

6.1 Theoretical implications

6.1.1 Well-being

Well-being was experienced throughout the three studies, and this included both hedonistic (happiness), and eudaimonic (life affirming) elements. I also found transcendent emotions (Bethelmy & Corraliza, 2019) which depicted awe and a sense of humility in relation to nature. This aligns with Kaplan (1993) to support nature as a pleasant experience which can also positively affect focus after the exposure. However, my research challenges previous research by Kaplan and Kaplan (1989) in relation to the restorative value of nature and Klotz and Bolino (2021) which decreed the potentially energising effects of nature after exposure. This being that within each of the three studies in this research work task benefit was experienced for some <u>during</u> exposure to nature outdoors not only <u>after,</u> as has previously been noted.

Indeed, in Study one, I did find that the majority of participants fell into 'positive' categories with regards to how they felt. This finding answered a very early question I asked myself within this overall research (p.1), "Thus, we understand that being outdoors in nature has the potential to benefit well-being but what about when people take work outside too – do the well-being benefits remain"? This was a major finding related to well-being more generally and to give early support for the use of outdoor space for working in.

However, I also found that some participants felt negatively either before, during or after coming back inside. Primarily, these negative feelings related to emotions felt and productivity. My research in Studies two and three showed that the root of the negativity was based on feelings of guilt. This was further explained through a felt sense that they were skiving. On the most part these feelings of guilt were self-imposed but projected onto others (e.g., colleagues). It was further discussed (Studies two and three discussions) that this self-imposed skiving label may have been related to the outdoor space - suggested as the juxtaposition and contradiction of the normalised usage of the space (e.g., indoor space normalised as office

workspace and outdoor space normalised as a social or recreational space) which I will discuss in the location autonomy sub-section 6.1.3, (p.179).

6.1.2 Focus on work tasks/productivity.

To recap, ART as proposed by Kaplan and Kaplan, (1989) states that there are four factors of being away, fascination, compatibility and extent which aid restoration in nature. This is important as restoration due to nature exposure occurs as fatigued directed attention is replaced by non-demanding attention (Pearson & Craig, 2014). Thus, when people take their work outside it may be presumed that because of the notion that directed attention is essentially taking a break then task focus and productivity would be lessened. However, across the three studies my research has shown that people are able to be focused on work tasks and be productive but that they may also simultaneously feel well. This is a key finding and a major contribution to ART, and which responds to a criticism of ART made in the introduction chapter of this thesis (p.6) with regards to the potential ability of participants to feel well and be productive whilst they were outside and not solely after nature contact. Feeling restored and therefore well is the focus of ART and relies on the fatigued directed attention becoming restored due to clearing of the head, mental rest, gentle interest and the opportunity for reflection. Yet, my findings were consistently showing most participants were feeling well but that some were maintaining their directed attention through continued focused working. ART supports that restoration occurs and is the sole outcome during nature contact: my research shows that some people also experience productivity as an outcome when they are immersed in nature outdoors alongside well-being more broadly. This is important because the effects of nature contact on productivity have previously been reported to be the outcome after nature contact and not during (Lee et al., 2017). Given that my research was situated within a working day and that outdoor space was being used as a workspace, the additional finding that people can be productive and feel well when they are outside has important implications in extending ART but also in informing the workspace design literature with regards to available workspace moving forwards.

In terms of the tasks which people choose to do outside there was no notable variation in the tasks undertaken between the three identified productivity groups, but how they worked in nature (e.g., the levels of thinking time taken whilst working) related to the fascination element of ART determined their productivity (e.g., task focused, mini micro breaker or well-being focused). Those focused on a task were more likely to be productive than those people who worked on tasks where the focus was allowed to wander onto nature instead. Indeed, being overly fascinated (e.g., the well-being focused group) suggests that nature can be experienced as a distraction to the detriment of productivity. In summary, I have found that productivity can depend on the level of interaction (fascination) with nature when working on a task (i.e., thinking time and creativity); but that where fascination with nature becomes a distraction productivity levels decrease and when fascination is expected productivity levels are high and well-being is secondary.

To help try and explain this further I will firstly consider fascination in more detail. On the one hand, Kaplan and Kaplan (1989) purport that nature is a soft fascination because it holds our attention which allows people to have meandering thoughts which results in felt restoration. On the other hand, hard fascination is described as attention which is applied to an enticement (Pearson & Craig, 2014) and this constant focus (e.g., work tasks) can be cognitively depleting. Following this programme of research, it is clear that a proportion of participants within these three studies were taking varied tasks outside and were generally utilising laptops and mobile phones. In this way productivity could be maintained for some participants.

In aggregating the findings across all three studies, it appears that participants deciding to take their work outdoors fell into two categories: pushed and pulled. My research showed that those who for instance were attempting to escape from the indoor noise wanted to maintain focus on work tasks and thus, working productively was a self-concordant and goal directed behaviour (Unsworth et al., 2014) which indicated that they felt pushed to take action to maintain their productivity even where this meant maintaining fatigued directed attention. My research found that this is enabled by

'expectant' fascination shown in Study one as people describing themselves when they were working outside as productive alongside positive affect such as happy, calm, or peaceful. In Study two the results showed that people could be productive as they avoided indoor distractions such as technology and colleagues. Importantly, the outdoor environment remained important because people experienced positive affect without having to pay any conscious attention to nature. Lastly, in Study three my understanding of fascination in nature and working increased. This was due to being able to further pull apart the experiences and define a proportion of people who were task-focused (whose main reason for taking their work outside was to work) and understanding that they would feel positive affect and restoration at the same time. Thus, I termed this extension to the fascination factor of ART as 'expectant' fascination. What is understood is that 'expectant' fascination allows for directed attention to be maintained such that focused productivity is achieved alongside feeling well and which may be explained by prior experiences or some other mechanisms which have not yet emerged.

Some participants were pulled towards nature, or the weather and they were more likely to be experiencing fascination which for the well-being focused group in Study three I proposed as a 'harder' soft fascination based on their experience of nature as encompassing (hard fascination) but which left space for meandering thoughts (soft fascination). The weather is a key determinant for people taking their work outside and thus participants depend on certain weather conditions (e.g., not wet and windy) to allow them to be productive and feel well when outside. People are more likely to experience productivity and well-being when the weather is dry and warm and less likely to be productive and feel well when they take their work outside and the weather is wet and windy. This may be explained by how viable outside working is based on the weather conditions.

Overall, the push or pull effect had an implication on productivity, for instance the group experiencing soft fascination (mini micro breakers) used nature to support their thinking in relation to their work whilst the group experiencing a harder version of fascination (well-being focused) felt a drop in their levels of productivity and the task-focused-group maintained productivity. Thus, I

make a theoretical contribution to ART: I note that fascination is not solely experienced as soft or hard and that 'expectant' fascination allows people to maintain directed attention so that they can work, but that the expectation to feel restored and well is based on an expected fit related to memories of time spent in nature is enough to allow them to bring forward the emotion related to the memory so that restoration/well-being is still experienced. Furthermore, because the well-being focused group fell between hard and soft fascination, I determined that a 'harder' soft fascination was experienced. Thus, it could be that fascination is not simply hard or soft – fascination may be being experienced on a sliding scale depending on the reason for going outside (e.g., pushed or pulled behaviours).

The sensorial aspect of nature was an important feature of outside nature contact for some people and this informed where they worked outside (e.g., so that they could feel the grass: e.g., haptic sense of touch – Bloomer & Moore, 1977) and (like memories and expectations related to the outside space), sense memory related to previous experiences (e.g. social events) was re-lived as some people worked outside. Therefore, it appears that experienced restoration may be the most potent in those people who have previous (sense) memories of time spent in nature but that this may conversely have a negative effect on the space being compatible for working in especially when the affordances support the social memories (see p.181).

A second factor of ART is being away which relates to being away either mentally or physically in an act of breaking free from stressors (Pearson & Craig, 2014). Being away is predominantly referred to as "…being away involves a conceptual rather than a physical transformation" (Kaplan & Talbot, 1983; in Kaplan, 1995, p173), which suggests that being away mentally is more important for restoration than being away physically. My research has shown how being away physically by going outside can be enough to support restoration and well-being, but I also found that directed attention can be maintained at the same time. This means that being away mentally from a stressor (e.g., from work tasks) is not always required for any restoration/well-being benefit because participants were reporting feeling well and restored despite still working. In Study one not being away mentally was

supported by participants using words such as focused, productive, and fruitful at the point of working outside alongside positive emotion words such as happy and calm. In Study two not being away mentally was again developed through task choice and completion and maintained directed attention alongside feeling well. Lastly, in Study three not being away mentally was reported as people experiencing feeling productive when they were working outside but where they were also reporting restoration/well-being benefit. Indeed, in some cases participants stated that they felt more productive when outside and that this became a cyclical experience of well-being and task attainment where restoration was not the sole outcome during nature contact. Thus, my research challenges the being away factor within ART to make a major contribution to add that being away mentally from a stressor (e.g., work) is not always a requirement for well-being and restoration to be experienced when working outside. To clarify I extend our existing knowledge to add that restoration was found to be experienced even when being away is a physical experience only and not a mental experience. A possible explanation is that this may be because the outdoor environment is sufficient for restoration and well-being to occur which is linked to the 'expectant' fascination or sliding scale of fascination previously described. Alternatively, the ability to be away physically and not mentally and be able productive may depend on what is in the outdoor space. I will discuss affordances later in this chapter (p.181) however it may be that physical reminders of what may be done in a space (e.g., a table) may provide mental reminders that people are outside to work. This knowledge is helpful for practitioners, workspace design engineers and architects as they consider future innovative workspace.

6.1.3 Location Autonomy

The experiences of the participants saw that choosing where was best for them to work (location autonomy) was important and that felt or uninterested management/organisational endorsement was helpful to diminish feelings of guilt. Whilst we have a good understanding of the benefits of autonomy in the workplace my research has shown how, when guilt is experienced, explicit location autonomy which includes using outside space can act as a solution

for the guilt. Throughout the three studies, location autonomy (e.g., Wu et al., 2023) has developed as a theme as participants determined to what extent they could actively use location autonomy and include outdoor space within that choice. A byproduct of location autonomy and a reduction of feelings of guilt is trust in the relationship between the workforce and the organisation/management. This was experienced by some participants because they felt that where there was encouragement of working outside this was an indication that the management/organisation had trust in them to still be working effectively.

Across the three studies there was a theme of some participants feeling concerned. These negative feelings were reported in Study one by words such as "naughty" and "guilty" at the point of working outdoors. In Study two this was a thread through the interviews conducted with one of the participants where they felt they were skiving for taking their work outside. After exploring this with the participant it turned out the felt skiving was a projection of what they thought that their colleagues were exclaiming about them. In Study three the words such as "odd" and "unusual" were used at the point of working outside where some participants were experiencing something out of the ordinary. Thus, the feelings of any discomfort experienced outdoors may relate to historical use of outdoor space and the associated perceptions and memories attached to that. It may be that a value has been placed on outdoor space as a place of relaxation or freedom to express oneself which sets itself apart from outside as a workspace. This may throw a curve ball into the experience possibly because outdoor space is not normalised as office workspace representative of a juxtaposition. Lefebvre (1991) referred to this type of space as contradictory meaning that the space is normally used for a certain purpose, but which is now being used for different purposes. Thus, peoples' guilt associated experiences may be explained by their memories of time spent outside in nature and a deep sense that the outdoors is for social events, sporting activities etc and not for work. Thus, my research has importantly shown and adds to our knowledge of ART, that when taking work outside, experienced well-being can depend on location autonomy based on felt management endorsement. This

highlights the relevance of this research to show that well-being when taking work outside is strongest when location autonomy can be acted upon because of management endorsement and lesser when location autonomy feels inhibited due to a lack of management endorsement.

Compatibility is a third factor of ART and relates to the levels of comfort people feel within nature based on the sense of fit between the space and the intended use (Kaplan, 1995), there may also be a sense of familiarity based on a felt connection. Indeed, some participants in Studies two and three spoke of the close connection as shared characteristics with nature (Lumber et al., 2023) such that they changed their state (e.g., calming environment – they felt calm). The majority of participants in Study three described some element of a felt connection with nature suggesting that place identity as proposed by Proshansky (1978) may have been occurring. Importantly, place identity suggests that memories, perceptions, and feelings (Hauge, 2007; Proshansky et al., 1983) all become incorporated as part of the self-concept and become accessible to be re-lived when exposed to a similar or same environment; where they are, according to Peng et al. (2020) mutually dependent. This may explain how at ease or relaxed many participants felt when they were working outside. However, the feelings associated with memories of time in nature and the subsequent feeling of being at one with nature may relate to a time when being in nature did not include working. This brings us back to the notion of juxtaposition/contradiction and so while people may feel comfortable in nature outside, they may also be subject to conflicting thoughts when taking work outside.

Affordances within the outdoor space may also create a juxtaposition and have a bearing for some not only on productivity given that people will decide what task they can do in the space based on the items within it (e.g., a table and chair) but also their well-being. This was defined as the items bringing forward memories of previous times of using such an item (e.g., a picnic bench and a social event) and in turn the emotional memory gave rise to a positive change in overall well-being. However, this could lead to a felt sense

of conflict where the affordances within the space added to the notion of informal versus formal space.

This is linked to the compatibility factor of ART and brings into focus the importance of considering both what is in a space and the experience of the space when people are deciding on the sense of fit for their identified purpose of being in the space (e.g., working) and their use of location autonomy to take action related to the sense of fit. Therefore, I suggest that based on compatibility, restoration is strongest when the perceived fit is higher and when the affordances within the space align with the fit, and lesser when the space and the affordances are experienced as contradictory to a perceived fit.

My research showed that some participants used outdoor space as an extension to their home workspace. This was reported in the results in Study one which showed that participants were more likely to work outside at home in the garden (31%: sub-section 3.2.2, p.38). It might be that more people were exercising location autonomy at home than at the workplace because at work they have to engage in more teamwork tasks or because there is no easily accessible outdoor area. In recognising that being outdoors in nature is not always comfortable and may create feelings of guilt I theorise that compatibility can be moderated by location autonomy.

Thus, I make a further contribution to the workspace literature by including outdoor space as viable workspace - related to the benefits of being able to choose where the best place is for people to work. The inclusion (for the first time) of outdoor space within the workspace literature is an important step forward in our understanding of outdoor space as viable workspace in the same way that an indoor café scene as part of an AFO (e.g., Wohlers & Hertel, 2017) inside the workplace is. This increases our understanding of how autonomous use of outdoor space is and can be used by participants to both feel well and be productive and where failure to recognise the potency of location autonomy which includes outdoor space may lessen the experience of restoration as depicted within the compatibility factor of ART.

6.2 Practical implications

Through the findings of these three studies, I make a practical contribution in terms of the legitimacy of outdoor space as a place to work supported by both the well-being and productivity experience of the participants. An important note from my research is that legitimacy is both an external (management/organisational) and an internal (based on projection) experience.

There has been new learning in terms of what is practically needed in any outdoor space to make working and well-being possible, and these include elements of nature. Trees and leaves and grass were found to be of importance within the interviews conducted in Studies two and three. Grass was also important as an influencing factor (e.g., greenery) related to people taking their work outside in study one. Fresh air was mentioned throughout all three studies. Elements of nature which have been found to be important may add to the compatibility factor of ART allowing people to feel comfortable in the outdoor environment. Thus, as a practical implication of importance for well-being, thoughtful elements of nature included within an outdoor area may help to create a restorative alternative workspace.

Furthermore, my research showed that affordances such as tables and chairs and shade can further aid the experience of taking work outside. This is informed by the main tasks undertaken outside as predominantly aided by a desk and chair (e.g., emailing and working on spreadsheets/documents. Alongside this the use of a technical device to do these tasks was recorded with laptops being the most used. Shade was mentioned most regularly in relation to the use of laptops and more specifically to the screen where the sun made it challenging to see what was on the screen. This was mentioned as glare on the screen in all three of the studies therefore some element of shade would be advantageous. These practical contributions are not designed to be difficult to attain, nor are they expected to replicate that which may be found indoors, they are steps that can be taken towards making outdoor working space available where the transition to working outdoors is straight forward. Perhaps the addition of affordances which support working

outside will also act as a nudge (Thaler & Sunstein, 2009) for people who are well-being focused as a reminder that there is an expectation that they will be working when outside. However, as a note of caution, the replication of an indoor office outside may be a double-edged sword where the more closely people are reminded of working indoors, the less the contradiction between the spaces is salient leading people to then feel less creative in their work.

6.3 Limitations

Outdoor space as a viable and legitimate space in which to work is in its' infancy and so might not be viewed as fit for purpose or somewhere that people can ascribe meaning to. This may initially be the cause of some hesitation effect as outlined by Mache et al. (2020) but this is unlikely to be a longer-term issue due to people organically using outdoor space already. However, it is acknowledged that some workplaces and some within a workforce do not have easy access to suitable outdoor space and this may be a disadvantage in terms of transferability and usefulness of the research to other businesses. There is no straight forward answer to this but discussion between a workforce and the organisation may find that alternative outdoor space exists close to either the workplace or the home which may be considered based on safety and the ability to work there.

Unless people have a connection or felt sense of what being in nature can offer them it may be that they choose to not take their work outside. These people have not been included in these studies and so there is a limitation that people have only put themselves forward to participate if they are either keen to take their work outdoors or they are already actively taking their work outdoors. As such there is a bias towards a particular sample. However, as the studies were all focused on the experience of people when they took their work outside it was difficult to address those people who considered that taking their work outdoors was not an option for them.

The weather, particularly in the UK, has been a predominant talking point throughout these three studies and was a key determinant of whether people went outside or not. Most people only went outside if the weather was deemed as nice enough which by degree means that when the weather was

not so good, they stayed inside. Whilst some people managed to plan ahead in terms of the weather and the tasks to be done there were some people who were spontaneous and if the weather was nice and they had some work they could do outside they acted on that impulse in the moment. What this means is that time spent outside may be regularly curtailed by the weather in this country and may therefore have been a limitation to participation within this research. Perhaps if there were facilities available to lessen the effects of the weather and which allowed for people to take their work outside (even for a short period of time) throughout the seasons then more people may be able to take advantage of taking their work outside.

All the participants expressed their willingness to take part in the research. However, Study two provided challenges due to the lack of incoming data. Prior to commencement of the study there were no apparent factors which suggested any differences between the participants and whether they would contribute data and attend the interviews.

When asked for input about the challenges or difficulties of photo elicitation and audio diaries during the mid-point interviews I was informed by those who attended that the lack of data was not about the practicalities of either: the lack was due to them not coming onto campus to work regularly (i.e., due to hybrid working) and I therefore deemed these as random attrition events. In this study the photos taken by one participant had a limited bearing on the subsequent interviews, but the audio diary data fared much better and was helpful for gaining in the moment insight. Ultimately, the two different interviews which took place held the greatest insights into the experiences of the participants.

In terms of the two participants from whom I received no data at all; the first was recruited via snowball sampling and may have felt some peer pressure to take part. However, within our initial conversation where the requirements of the data collection were discussed they consented freely. The second participant who failed to submit any data or take part in the interviews had (in the early stages of the study commencing) suffered a bereavement and although they informed me of their intention to participate this did not

happen. Given these circumstances I felt it unhelpful to try and make further contact more than once. I therefore consider that in both these instances their attrition was random.

In hindsight even where on the one hand the positive implications of the use of certain data collection methods can be extensively researched and be deemed as helpful and appropriate within a study, on the other hand this may not always work in the reality of a research study: lessons can be learned from this. Specifically, the methodology and the types of data collected were assessed by myself as aligned to the research goals (Mwita, 2022) to provide me with subjective lived experience accounts of the phenomenon from different angles. Indeed, in the survey in Study one I had tested the appetite for audio diaries and photo elicitation by asking what type of future research participants might be interested in taking part in; where data collection that involved audio diaries and photo elicitation were positively supported. The problem as it transpired was that even where participants had thought they would be working on campus regularly post the Covid-19 restrictions this did not happen. The lack of data may have been detrimental to the findings due to the limited amount of data, however, the insights into the experiences which emerged during this study (aided by the use of IPA) were helpful particularly in relation to my knowledge around location autonomy, nature and the senses (in terms of memories and space) and management/organisational endorsement which built upon the findings of Study one.

Whilst the barriers to some methods of data collection were unknown before the study commenced (because at the time I could not speculate on the workplace choices people were going to be faced with, e.g., the lack of campus working) consideration of incentives or more immediate reminders may have been fruitful in generating more data. For instance, cash incentives are known to be helpful for aiding participation (Abdelazeem et al., 2022) and may have proved beneficial within this study. Push reminders (Robinson, 2010) may have increased the response rate for those working on campus, acting as nudges to elicit a data collection submission.

As such future research should consider whether the conditions of the study (e.g., working outside on campus) are stable and what incentives can be offered (particularly in a longitudinal study which depends on participation over time) which would benefit the amount of data collected.

Specific limitations of each of the three studies were outlined at the end of each of those chapters. It should be noted, however, that the combination of the three studies provides some compensation for each of these limitations. Notably, the superficial nature of the results in Study one are offset by the depth of findings from Studies two and three; the purely UK-focus of Studies two and three are offset somewhat by the international sample obtained in Study one; the lack of people working at the workplace in Study two was offset by the inclusion of people who worked outside at the workplace or at home in Studies one and three; and the cross-sectional nature of Studies one and three are offset by the longitudinal findings of Study two. In this way, I propose that the aggregated set of findings outlined in this chapter may be less subject to criticism than those within the individual studies.

6.4 Recommendations and future research

My research has shown that when people take their work outside, they generally feel well – apart from that is when they feel guilty about being outside. Organisations have a chance to support their workforce in the creation of further choice about where the workforce do their work. Furthermore, management and/or organisational endorsement of location autonomy in the workplace (be this at the workplace or at home) which includes outdoor space may benefit from being included into organisational policy and procedures thus providing legitimacy. It could be that a collaborative approach to any policy or procedure change would be beneficial in bringing people onboard with the initiative. This is synonymous with a change approach which is both "adaptable and flexible" (Furnham, 2005, p.675) and allows that the space within which people work can change as people's ideas and experiences about where they want to work also change. Moreover, this would provide clarification on where the workforce can work from and may help give boundaries around both the taking of and

the type of work done outside thus helping to remove ambiguity about what is acceptable. Perhaps management who lead the way and take meetings outside where appropriate would be beneficial to both the management and the workforce (as was found in Study three). This may in turn help to alleviate feelings of guilt and naughtiness which some participants experienced throughout the three studies.

The number of people who reported themselves as taking their office work outside was a surprising finding in Study one and as such the encouragement and availability of outdoor working space has an opportunity to reflect and make viable that which is already happening. Yet, for people to feel comfortable within any outdoor space (and therefore be open to beneficial outcomes) the juxtaposition/contradictions (Lefevre, 1991) of the space (e.g., informal versus formal) needs some consideration. Associated thoughts linked to the juxtaposition and the linked behaviours and feelings are an area for future research. It could be that the juxtaposition can be utilised by organisations to aid the workforce to work differently (e.g., with a sense of freedom or creativity). Of course, the ideal scenario is a series of spaces outside which facilitate different types of working from task led (afforded by tables, chairs and shade) to more creative areas (afforded by large tables or benches which support collaborative brainstorming). This would allow people to access different areas outside depending on the intended work tasks and which in turn would support their well-being.

Future research could seek to follow an organisation as they adopt a working outside is viable policy to determine the effectiveness of such a decision. Policies which lay out the inclusive use of outdoor space within location autonomy should involve HR within this process. This is because the results showed taking work outside could be an aide to the workforce actively working and feeling well. Well-being initiatives and mental health support within numerous organisations is increasing (HR Magazine, 2021). This is in response to the notion that the number of people who may require some element of well-being support is potentially high. To not respond will have consequences for both the workforce (e.g., burnout) and the organisation in terms of employee turnover (Arnold et al., 2016). Appropriate provision and

delivery of workforce wellness adds value for both the workforce (better health and well-being), and the organisation (reduced absenteeism: Voordt & Jensen, 2021). According to Smith et al. (2013) humans' connection to nature (biophilia) is a well-being domain which is accessed by a need and autonomy to act on that need. Therefore, the provision and access of an outdoor space which includes elements of nature would aid the autonomous behaviour to use that space.

I made the decision early on within this overall study to focus on the experience of the participants. This was to learn more about the phenomenon and was anticipated as the most relevant way to conduct this research. To do this I used a multi methods approach including a six-month longitudinal study. I felt that in collecting data in a number of ways this would give me an understanding of the experience of people from different angles. Through the process the main findings have been in relation to experiences of productivity and guilt alongside well-being and moderators such as 'expectant' and 'harder' soft fascination and location autonomy. I therefore warmly suggest that these findings provide a good opportunity for quantitative researchers to investigate the constructs further to develop some of my thinking (e.g., juxtaposition of the space and sense memories). This may provide more generalised findings to develop our understanding of the phenomenon further.

7. Conclusion

Before the onset of the Covid-19 pandemic the thought of working from home and taking office work outdoors was perhaps for many office workers a dream-like thought which was more thought than potential action. Fast forward to now and the actionable ability to take office work outdoors has become an important topic of discussion due to the number of people who are actively doing this. This study is the first to explore the experience of people who take their office work outside in the UK.

Through the three studies conducted within this thesis I have clearly defined the aims of the individual studies. Study one aims were to understand,

- How participants were using an outdoor workspace (RQ1) and,
- What was the experience when people took their work outside (RQ2)

To do this I conducted a survey with people who take their office type work outside either at home, at the workplace or both. The outcomes showed how people were creating an outdoor space to work, by choosing work such as emailing, writing reports, phone calls and reading, using a laptop or a mobile phone and that they were more likely to be working alone. Participants were working outside for an average of just under an hour. The length of time goes beyond a micro-break (e.g., Lee et al., 2017) and the study data suggests that participants were using their time outside effectively to complete certain tasks, attend meetings or to enjoy the outdoors for a specific length of time.

The findings also showed that both positive and negative well-being was experienced alongside varying degrees of productivity. This was noted within the answers to the 'what three words' questions aimed at three time points from thinking about, working outside, and returning inside. The use of the three time points allowed me to gain some understanding of the liminal experience including expectations of taking work outside, the experience outside and whether any feelings last when they returned inside. This is important to know more about at this early stage of exploration of this phenomenon. In essence, for organisations to encourage a 'working outside is endorsed' rhetoric there would need to be evidence of the experience for the workforce through the trajectory such that there is equanimity in benefit.

Lastly the survey answers provided insights into the influencing, encouraging and discouraging aspects of people taking their work outside which notably were related to the climate, noise and greenery.

The mixed findings of the experience of taking work outside are conducive to the research literature with regards to nature elements within an indoor workspace (e.g., Thatcher et al., 2020) however, my findings suggest that other factors may have had an effect on both well-being and productivity. In particular, the climate and noise were experienced as either having an influence on or encouraging/discouraging people to take or when they worked outside. Noise within an office can be distracting and hard to control (e.g., colleague phone calls) where noise outside is also hard to control (e.g., traffic). Likewise, the indoor 'climate' is determined by those who have access to the heating or air conditioning controls and is perhaps defined as a group need whereas when outside apart from shading there is very little control over the temperature for instance.

My aim for Study two was,

- To understand the well-being and productivity experience of office workers who take their work outside in the UK, (RQ2).

This was done by also gaining knowledge about,

- The meaning of working outside for people who do office work.
- The elements of nature which were beneficial to individuals' experience when they took their work outdoors and,
- What needs had to be met by the participants as they took their work outside which would mean that they could work outside.

To do this I conducted a six-month study and collected data using photo-elicitation, audio-diaries, and interviews. Whilst the uptake of participants for the study was limited to six participants, I gained valuable insights into the experience of taking work outside when people were based at the workplace. The findings suggested that management endorsement was a key determinant of people taking work outside and that guilt related to colleague negative comments could also have an effect. Organisation and colleague

endorsement was never denied to participants within this study, and yet feelings of guilt (like that found by Petersson Troije et al., 2021) were still experienced for one participant. The internalised and then projected feelings of guilt were attributed to years of co-worker critique of people working from home and the skiving mentality placed on this.

It can now be tentatively stated (due to the limited sample) that some people are able to work outside and be focused and productive whilst also feeling well. This finding adds to the being away factor of ART (Kaplan & Kaplan, 1989) because they were physically away from the indoor workspace (in line with ART and being away) however, mentally they were not being away and were maintaining directed attention whilst also feeling well.

The ability to work and be productive was in part explained by way of the affordances in the outdoor space meeting the participants needs. Affordances were an important consideration and appeared to inform the participants of two things. Firstly, that the space was suitable for working in because there were things in the space which gave rise to suggesting that this was possible (e.g., somewhere to sit). Secondly, the affordances of the space could create a juxtaposition and add credence to the feelings of guilt which one participant associated with taking work outside.

There were four elements of nature which were mentioned the most and which were beneficial namely: air, grass, leaves and sun. There is some evidence to support that these were linked to the senses and memories and that this may have influenced where participants chose to work. This is in line with the compatibility factor of ART where the environment fits with the intended use of the space.

Study three aimed to understand more about,

- How office workers used outdoors spaces as workspaces (RQ1)
- How people who took their work outside understand their experience of well-being and productivity (RQ2), and
- How and why people experience well-being and differing degrees of focused productivity when working outside in the UK (RQ3).

This research consisted of individual semi-structured interviews with 48 participants and showed that location autonomy which includes the outdoors as a viable workspace is helpful towards well-being. Location autonomy (Spivack & Milosevic, 2018; Wu et al., 2023) deemed as the ability to choose where the best place is for individuals to work can affect a person's ability to feel well when they take their work outside; (found throughout the three studies) and is explained by the space needing to feel viable as a workspace. Where there was ambiguity around the inclusion of the outdoors within location autonomy this could increase negative affect. It was also found that some people's internalised negative views of working outside were reflected on to colleagues and this then acted as a barrier to both people taking work outside and for feeling guilty when they did work outdoors. There was limited evidence to suggest that this may be explained by the juxtaposition/contraction of the use of the space; explained as outdoor space being normalised by people as recreational space. This may tentatively explain why some people feel guilty for using the space for working in because it is normalised as a space for leisure time (e.g., that they are relaxing not working). If a space is going to be used differently to that which it is usually used it is reasonable to assert that management/organisations need to have relevant conversations around the endorsement of this so that people can gain the full well-being benefit of taking work outdoors during the working day.

Another explanation related to location autonomy and well-being are the affordances of the space (Gibson, 1979). This relates to representations the affordances give about how outdoor space can primarily be used where in the context of this overall research the requirement is to work. However, it can now be determined that despite barriers for some people (which can be self-imposed) the desire or ability to be in nature can be beneficial for positive affect and productivity. It nevertheless can be argued that management/organisational endorsement of the use of outdoor space is a vital component in the acceptance of outdoor space as a viable space within location autonomy.

People had differing experiences of focus and productivity when taking their office work outside which resulted in the formation of three groups; task-focused who went outside to focus on their work, mini micro-breakers who took frequent mini micro-breaks to enjoy the natural environment which in turn supported their working, and well-being focused who felt distracted by nature.

One further interpretation of the reason why people take their work outside and how productive they are could be explained by way of expectation or previous knowledge of times in nature. The compatibility factor within ART (Kaplan & Kaplan, 1989) explains how we need to feel comfortable that a natural environment is fit for the purposes of what we intend to do there. However, the expectation found in this study was two-fold and related to both an expectation to feel well and to be productive. The variation in productivity levels may therefore be explained by the contradictory values of what can be done in the space (based on previous knowledge) and which may lead to conflicting priorities and feelings.

Through the findings of the three studies, I make theoretical contributions to the theory of ART and location autonomy. In terms of ART my three theoretical contributions relate to firstly, being away and the ability of people to be away from a stressor physically but remain mentally focused to continue working and therefore maintaining directed attention in relation to their work tasks. Secondly, compatibility is extended due to the finding that whilst people may feel comfortable generally in nature when they take work outside the juxtaposition/contraction felt in relation to the use of outdoor space may mean that they are conflicted over whether they feel comfortable and not. Lastly fascination is extended to include 'expectant' and 'harder' soft fascination where fascination is experienced as neither soft nor hard. 'Expectant' fascination was explained by people knowing that they would feel better by taking their work outside and so did not have to interrogate the relationship any further and 'harder' soft fascination was determined as both demanding of attention and allowing of meandering thoughts. The workspace design literature which includes location autonomy should be extended to

include outdoor space as a viable alternative workspace. This would help to alleviate concerns over whether or not it is acceptable to take work outside.

Furthermore, I also make a substantive practical contribution towards workplace design based on the knowledge of the elements of nature and affordances within an outdoor space which means that people may work there. This research shows that where outdoor space is available be this at the home or at the workplace this space can be conducive to people feeling positive affect and being productive. This is not to say that all people will either want to work outside or indeed will enjoy working outside but if the option is made available via the management/organisation and if there are affordances in the space which allow for tasks to be done in that space then perhaps more people will gain benefit by doing so. In practical terms this research has shown that the outside space does not need to be over complicated in design. Areas which include some elements of nature and somewhere where people can sit and work effectively are the basic elements. Of course, shading and power sockets where possible would also enhance the space and would mean that more varied tasks may be carried out outside. Where mention of bookable organised outdoor office type layouts were described this was essentially in response to feelings of guilt and nervousness about taking work outside and what others may think and so if the management/organisational endorsement is made clear then this may be enough to not warrant such a strategic outdoor office space because doing so may detract from the freedom to choose which space outside is best for the individual.

Overall, this research has found that many people are already taking their office type work outside and that they can do this whilst feeling well and working productively. The changing face of where people work has been affected by the Covid-19 pandemic such that location autonomy which includes the outdoors has become important for some people. This research has achieved all of the aims as set out in the methods section of each study leading to a more in depth understanding of the experience of people who take their office work outside.

Based on these findings I hope and recommend that research continues to add to this conversation in the UK and seeks to uphold the freedom and flexibility that can be enjoyed by people as they take their office work outside. It is not enough to simply accept that office work has to continue to be normalised as done within an indoor space because people are already showing us how, where and why they want to work outside and what this means for them. Only in doing so will workspace be designed which understands the individual, what being able to work outside means and which aligns with how, where, and why people want to work now.

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Appendix i -Participant information sheet for survey (study one)

In this study I will ask you a series of questions about taking your office work outdoors.

The aim of this research study is to understand the lived experience of using an alternative outdoor workspace. This will help us to consider the use of these workspaces as a workplace initiative where people who normally work indoors take their work outdoors. The short survey you will be directed to will take approximately 5 minutes to complete. Following the survey, some participants will be invited to an interview.

To participate, you need to have taken a piece of work outside during working hours. The piece of work can be varied and may include writing, reading documents or for a meeting. The work undertaken outside can also include both sole working or working with other people. We want to understand what you think and feel about the use of an outdoor workspace and your engagement with the research study will be crucial to any findings. To take part in the interview participants will need access to a digital device and Microsoft Teams as the interviews will take place over Teams.

The survey data will be stored securely and will comply with the DPA 2018 and the University of Leeds Code of Practice on Data Protection.   Once the research study is complete (October 2024) the survey data will be stored within The University of Leeds Repository, as the findings may be used for subsequent research studies within this subject area.

You are free to decide whether you wish to participate in this research study. You will be directed to the study URL to read the participant consent form before answering yes or no to the question asking if you wish to participate. Anyone wishing not to consent to participate at this stage is politely requested to return their study spot. You may choose to withdraw (delete) your data up to one-month from the date of your survey. You do not need to give a reason to withdraw your consent.

Link to The University of Leeds privacy notice for research participants: https://dataprotection.leeds.ac.uk/research-participant-privacy-notice/

Ethical consideration

This research study has been reviewed and given a favourable opinion by the University of Leeds Business School Research Ethics Committee on 27/8/2021, 15/12/2021, 16/06/2022 ethics reference AREA 20-175.

Appendix ii – Qualtrics Study one information sheet

Hello, thank you for your interest in our research project.

You will be presented with more information, outlining the aims of the project and what will be required of you. You will then be asked to give consent to take part in the project, before being directed to the main questionnaire. Please read the information carefully and if you have any questions please contact the Lead Investigator.

You are being invited to participate in a research study examining if, when and why people use an alternative outdoor workspace. The purpose of the overall research programme is to understand the experience of people as they take their office work (e.g., reading, writing, emailing, meetings, phone calls) outside to either a designated area or other outdoor area.

The survey will take you approximately 5 minutes to complete and your participation in this study is entirely voluntary.
- You can stop the survey at any point and you do not have to answer any questions you do not want to.
- Once you have submitted your responses it will not be possible to withdraw you answers.
- We believe there are no known risks associated with this research study beyond those encountered in day-to-day life; however, as with any online related activity the risk of a breach is always possible.
- To the best of our ability your participation in this study will remain confidential, and only anonymised data will be published.
- We will minimise any risks by storing your answers securely and not asking for personal information.
- Further information is available via The University of Leeds Privacy Notice:
- Ethical approval has been approved by the University of Leeds, ref: AREA 20-175.

Investigator: Sarah Holland, Leeds University Business School
Email: bn17s2eh@leeds.ac.uk; Phone:(+44) 113 343 6321

Appendix iii – 3 words thinking about taking work outside.

Appendix iv – 3 words when working outside.

Appendix v – 3 words when return inside

Appendix vi – email to University of Leeds employees

SUBJECT – Doctoral research study relating to the experience of working outdoors on the University campus.

Hello,

"Are you curious about taking your work outside?"

We are creating a specific outdoor work area on campus supported by the University Facilities Directorate and Living Lab. Alongside understanding if, how and why people work in this area we are also keen to explore the experiences of people who access other outside areas on campus. This practical aspect will help the university to evaluate the potential benefits and use of outdoor workspaces on campus. I am interested in recruiting participants who are curious about working outdoors and who are willing to share their experiences of using the outdoors as a workspace. You don't have to work outside all the time, nor even on a regular basis; I would love to hear from you even if you only take your laptop or some documents outside for half an hour once every couple of weeks. If you choose to take part in the six-month study, you would be asked to record a short audio and photographic diary each time you use an outdoor space on campus to work. I will talk with you after 3 months and, at the end of the 6-month timeframe to hear your thoughts in more detail.

Ethical approval has been granted for this study (AREA – 20-175).

If you are interested in finding out more, please contact me for further details

Email: bn17s2eh@leeds.ac.uk

Kind regards,

Sarah Holland

Doctoral Researcher, Management Department, Leeds University Business School

Appendix vii – Study 2 information sheet

DOCTORAL RESEARCH STUDY INFORMATION SHEET

UNIVERSITY OF LEEDS

Title of study

How do people who use an alternative outdoor workspace understand their experience of well-being? A participant diary study using Interpretative Phenomenological Analysis.

Information

You are being invited to take part in the above research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please feel free to ask me if you are unclear about any aspect of the research study or if you require further information before you decide whether you wish to take part.

Purpose

This research study is being carried out to understand the lived experience of '*how do people who use an alternative outdoor workspace understand their experience of well-being?'.* This will help us to understand an alternative outdoor workspace as a workplace initiative. The methods of participant audio diaries, photo-elicitation and two interviews (one unstructured at the 3-month time point and one semi-structured at the end of the study timeframe of 6-months) will allow exploration and potentially rich data in the subject areas of workspace design, architecture, psychology, management, and HR.

Invitation to participate and what is involved

In agreeing to participate you will be one of a small number of individuals. The research study will require that you actively participate in submitting a monthly audio diary and occasional photographs to the researcher via WhatsApp. To hear your thoughts in more detail I will catch up with you in an unstructured interview at the mid-point (3-month time-point) and the end of the study using a semi-structured interview (6-months). The information sought relates to subjective meaning and descriptive understanding from the use of an outdoor workspace and your engagement with the research study will be crucial to any findings. The interviews will take place within the outdoor workspace where possible.

Your photographs and audio-diaries and transcriptions of the audio-diaries will be stored securely on The University Office 365 one-drive. The interviews will be audio recorded by the researcher to enable full transcription which is contextual and factual and will be stored securely on the University Office 365 one-drive. All data will be stored using a coding

system devised by Sarah Holland. The audio recordings and audio diaries will be used for analysis with small sections of text used within the main thesis and/or any subsequent publications. Any quotations used will be anonymised. The recordings will be stored securely via the University of Leeds Office 365 one-drive and will comply with the DPA 2018 and the University of Leeds Code of Practice on Data Protection. The original data will be stored securely within The University of Leeds Repository once the research study is complete (October 2024) as the findings may be used for subsequent research studies within this subject area.

The possible benefits of participating

It may be found that working outside does have possible benefits but there are no further immediate benefits for those people participating in this research study. It is hoped that this study will provide a platform from which further study into subjective meaning and use/provision of outdoor workspace is aided.

Consent and Withdrawal

You are free to decide whether you wish to participate in this research study. If you do decide to participate you will be asked to sign 3 consent forms (participant photo-elicitation, participant audio diaries, and participant interviews) . You may choose to withdraw (delete) your data up to one-month from the start date of the study. Contact Sarah Holland (bn17s2eh@leeds.ac.uk) if you choose to withdraw your consent to take part. You do not need to give a reason.

Link to The University of Leeds privacy notice for research participants: https://dataprotection.leeds.ac.uk/research-participant-privacy-notice/

Ethical consideration

This research study has been reviewed and given a favourable opinion by the University of Leeds Business School Research Ethics Committee on 2/9/2021, 15/12/2021, 16/06/2022 ethics reference AREA 20-175.

Thank you for taking the time to read through the information. If you require any further information, please contact me (Sarah Holland) via email: bn17s2eh@leeds.ac.uk

Appendix viii – Study 2 interview consent form

UNIVERSITY OF LEEDS

I hereby agree to be a participant in this study to be undertaken by Sarah Holland (Doctoral Researcher, University of Leeds Business School). I understand that the purpose of the research "*how do people who use an alternative outdoor workspace understand their experience of well-being?*", is to explore meaning and sense making experiences of well-being from use of an outdoor workspace.

I understand that:

- ☐ I agree that I have received an explanation of the aims, methodology, any potential benefits and, possible risks/hazards of the research prior to me signing this form.
- ☐ I agree that I have not been placed under any duress to take part in the study and voluntarily and freely give my consent to my participation in this research.
- ☐ I understand that the aggregated results will be used for research purposes and may be reported in scientific and/or academic journals and will form part of the Doctoral Thesis of Sarah Holland.
- ☐ I understand that individual results will only be shared with the two named supervisors of this research and will not be released to any other person except at my request and on my authorisation.
- ☐ I understand that my choice to withdraw from the study should be informed to Sarah Holland within one month of the study commencement, where it is deemed that I am at liberty to withdraw my consent at any point up to that date. Participant withdrawal from the research will mean that inclusion will cease immediately, and any information obtained from me will not be used within the Thesis or publication thereafter.
- ☐ I understand that anonymity of the interview files will be ensured by Sarah Holland through coding.
- ☐ I understand that there will be a requirement for me to take part in a mid-point informal interview and a final interview at the end of the 6-month study period.
- ☐ I agree to the interviews being audio recorded and transcribed in full by Sarah Holland. The two supervisors, (Ass. Prof Matt Davis and Prof. Kerrie Unsworth) will also have access to the audio recordings and transcriptions as part of the research team.
- ☐ I understand that any quotes used within the text of the findings will be anonymised but not confidential. These quotes will be edited in such a way that they are still representative of the participant's meaning but

that they do not disclose information which may mean their identity is traceable.

☐ I understand that the findings and analysed data may be used for subsequent research.

☐ I am aware that audio recordings and full transcriptions of the interviews will be stored via the University of Leeds Office 365 and will be destroyed once the research study is complete, (October 2024).

☐ I am aware that hard copies of the transcriptions and signed consent forms will be stored in a locked cabinet where only Sarah Holland will have access.
Once the study is complete these hard copies will be stored within The University of Leeds repository.

Researcher' contact details: Sarah Holland. Email bn17s2eh@leeds.ac.uk

Supervisor contact details in relation to this study:

Associate Prof. Matt Davis. Email m.davis@leeds.ac.uk,

Prof. Kerrie Unsworth. Email K.L.Unsworth@leeds.ac.uk

Signature of participant:

Date:

**Appendix ix – Study 2 photo elicitation
consent form**

UNIVERSITY OF LEEDS

I,……………………………………………………………….

Of,……………………………………………………………..

Have been made fully aware of and understand that for the purposes of the Doctoral Candidate study of Sarah Holland with regards to *how do people who use an alternative outdoor workspace understand their experience of well-being?* the following apply:

- ☐ I agree that the photographs taken will not include any other person who may be in the space at the same time.
- ☐ I agree to take photographs using my own mobile device.
- ☐ I agree to send the photographs to Sarah Holland via WhatsApp once every month for the duration of the study.
- ☐ I understand that the photographs will not be used within the Thesis or any other publication arising as a result of this study.
- ☐ I understand that once received by the researcher via Teams the photographs will be stored securely on the University of Leeds one-drive office 365 and on completion of the study all data in relation to the study will be stored indefinitely within the Leeds repository.
- ☐ I understand that only the researcher (Sarah Holland) and both the supervisors (Assoc Prof. M. Davis & Prof. K. Unsworth) will have access to the photographs for the duration of the study.
- ☐ The University of Leeds are aware of this study.
- ☐ If I decide to withdraw my consent from this study all of the photographs I supply will be deleted and not used for this study or any other publication in relation to this study.
- ☐ I understand that notice of withdrawal from the study is limited to within one month from the start of the study.

Researcher' contact details:

Sarah Holland. Email bn17s2eh@leeds.ac.uk

Supervisor contact details in relation to this study:

Assoc Prof. Matt. Davis. Email m.davis@leeds.ac.uk

Prof. Kerrie Unsworth. Email k.l.unsworth@leeds.ac.uk

Signature: Date:

Appendix x – Study 2 consent form for audio-diaries

UNIVERSITY OF LEEDS

I,………………………………………………………………

Of,…………………………………………………………..

Understand that for the purposes of the doctoral research study as outlined by Sarah Holland regarding an outdoor workspace and the use of audio diaries, the following apply :

- ☐ The audio diaries will only include the participant and will not include any other person.
- ☐ I agree to forward the dated audio diary footage to Sarah Holland monthly (via WhatsApp) throughout the 6-month term of the study.
- ☐ I understand that the audio diaries will be anonymised upon receipt.
- ☐ I understand that the audio diaries and transcriptions will be held securely on the University of Leeds one-drive until such times as the study is complete and after this time, they will be transferred to The University of Leeds repository.
- ☐ I agree that audio diary transcription content may be used within the Thesis and understand that this will be anonymised with no reference made to my gender or role at the university.
- ☐ I understand that any audio transcription content will be edited to ensure that whilst it remains a clear depiction of the experience it will not be traceable back to me as the participant.
- ☐ Full transcription of the audio diaries will be undertaken by Sarah Holland.
- ☐ I can choose to withdraw from the study up to one month from the start of the study. If I choose to withdraw before this point all data in relation to me will be deleted and not used within this study or any subsequent publication in relation to this study.
- ☐ Researcher' contact details:

Sarah Holland. Email bn17s2eh@leeds.ac.uk

Supervisor contact details in relation to this study:

Ass Prof. Matt Davis. Email m.davis@leeds.ac.uk

Prof. Kerrie Unsworth. Email K.L.Unsworth@leeds.ac.uk

Signature:

Date:

Appendix xi – Study 2 audio-diary prompt sheet

UNIVERSITY OF LEEDS

THANK YOU SO MUCH FOR TAKING THE TIME TO RECORD YOUR AUDIO-DIARY. YOUR PARTICIPATION IS KEY THIS STUDY.

How

Please make sure that no other person's voice is captured within the audio-diary recording.

Take a minute to reflect on your experience of working outdoors and how you have made sense of any changes to how you feel.

Send the audio recordings to Sarah Holland (via Teams) once per month for the 6-month duration of the study. If you have not worked outdoors within a month, please **briefly** describe (using an audio-diary) why you have decided not to work outdoors.

When

Record a short audio-diary entry as soon as possible after your visit. This needs to be no longer than a couple of minutes at most and preferably would be after each visit. **PLEASE STATE THE DATE AT THE BEGINNING OF EACH AUDIO-DIARY.**

It would be helpful if you considered:

1. What was the reason you worked outdoors?
2. Once you started working outdoors how did you feel?
3. If you felt differently, can you describe or make sense of any changes?
4. Why did you feel like you did?
5. Were there any changes in relation to your work?
6. Thinking about your experience please consider and describe which element of nature you think is significant to your experience and **take a photo of that nature element.**

Appendix xii – Study 2 semi-structured interview questions

UNIVERSITY OF LEEDS

Title

How do people who use an alternative outdoor workspace understand their experience of well-being? An auto-ethnographic and participant diary study using Interpretative Phenomenological Analysis.

Research Proposal Summary

This research will use auto-ethnography, participant audio diaries, photo-elicitation, and semi-structured interviews to investigate subjective meaning and experience of well-being within an outdoor workspace. Research into the use of biophilia in the workplace has so far mainly focused on the workspace as an indoor room whereas for this study I am looking to build theory in relation to an outdoor room. It is hoped that this research study will fulfil this current workspace gap and add to the literature in the areas of workplace design, psychology, environment, and management. Most importantly it is hoped that we add to both Attention Restoration Theory (Kaplan & Kaplan, 1989) and Stress Reduction Theory (Ulrich, 1991) by way of teasing apart which element of nature within an alternative workspace outdoors is key to feelings of well-being as described by participants. To further understand well-being Self-Determination Theory (Deci & Ryan, 2008; Ryan & Deci, 2017) will be used. Data analysis will be using Interpretative Phenomenological Analysis where key considerations include the experience of well-being within the outdoor workspace; and for the researcher an opportunity to understand both themselves and participants whilst also noticing areas which the participants are not consciously aware of. This will be helpful in terms of interrelated, interdependent facets found within the research study.

Semi-structured interview questions

Introductory question

1. How would you describe your connection to nature?

Nature in the workplace

1. You have taken photos of the nature elements of x and y can you describe how they have helped your well-being?

Alternative workplace outdoors

1. How would you describe the process of choosing to work outdoors?

Alternative outdoor workspace as a workplace well-being initiative

1. How do you use the space to support your well-being?

Current understanding of the workspace

1. When you return inside how do you then feel?

Workplace well-being

1. How would you describe and make sense of your well-being in this space?

Prompts

1. Tell me more.
2. Can you tell me more about that experience
3. How do you make sense of that
4. Can you describe that a bit more.
5. Can you explain that further
6. Can we explore what you've just said
7. Can you expand on that
8. Why is that
9. Can you give me a bit more detail
10. How often have you felt like this
11. What else
12. I'm really interested in what you've said can you explain that more
13. Carry on
14. Please, continue.
15. Can you just tell me more about that particular point
16. I'm curious about that.
17. That's interesting.

Appendix xiii – List of organisations to contact for support.

Below is a list of organisations which may offer help and advice for mental health issues.The list is by no means complete but does offer a starting point.

Organisations to contact in times of needed mental health support:

The Samaritans – Tel number 116 123

                    Email Jo@samaritans.org

My Black Dog – Online chat

                  https://www.myblackdog.co/mental-health-charity

CRUSE bereavement services – Tel number 0113 234 4150

Womens Aid – Online chat

                https://www.womensaid.org.uk

Mind – Tel number 0300 123 3393

Young Minds – Tel number 0808 802 5544

Rethink Mental – Tel number 0808 801 0525

Campaign against living miserably (CALM) – Tel number 0800 58 58 58

SANE – Tel number 0300 304 7000

Appendix xiv – Post it notes for individual themes

Appendix xv – Table of themes for 'Martha'

Table of super-ordinate themes and themes for Martha – study two

(Data key: AD – audio-diary, UI – unstructured interview and FI – final interview)

Themes	Data/line	Key words
Outdoor usage motivated by the study		
	AD/6	I decided to work outdoors because having signed up for the study
Task		
Easy/appropriate	FI/288	I had some training I needed to do
	FI/229	If I could do something fairly easy
	UI/65	Type of work I'm doing
Planned	FI/206	Pre-sort of organise myself
	UI/14	I wasn't too busy
	AD/9	Looking for opportunities that would be appropriate
Uninteresting	AD/22	The course wasn't that interesting
View on working outdoors		
Negative	AD/12	Just try
	UI/172	I'll try to do it
	FI/180	I found it extremely difficult
Will continue	FI/222	I'd probably have to be doing something fairly routine
Affordance of space		
Fit for purpose	FI/67	Not just gonna sit somewhere on a wall
Shade	UI/106	Maybe some shade
Tables	AD/13	There were some tables set up
	FI/297	Pub style tables
Seating	UI/74	If there was an outdoor working space where you could book a seat
Desks	UI/114	Having a proper desk

Sockets	UI/104	A docking station where you could plug in
	FI/189	You can't plug in
Distractions		
	AD/20	I felt quite distracted
	UI/29	There were things blowing onto my laptop screen
	UI/162	That was quite distracting
	FI/222	Have to be doing something fairly routine
Weather		
	AD/26	It was quite cold and windy
	UI/29	It was kind of windy
	UI/64	The weather is obviously a big one
	UI/171	It's too hot
	FI/74	The weather is unpredictable and it's cold and stuff
	FI/275	Were a warm sunny day I'd be like oh I'd probably go out for the afternoon
Not working on campus much		
External factors	AD/42	The buses have been on strike
	AD/62	Been on jury service!
	UI/18	Was a bus strike
	UI/20	Then I went on holiday
	FI/4	I had a week off as well
Personal preferences		
Others influence	AD/66	I did try to arrange a meeting outside
	FI/192	I did try and organise a meeting outside
Lack of defined working area		
	UI/23	I needed to figure where I'm gonna go
	UI/35	Well where shall I go
	UI/59	It's an extra thing to think about

	UI/71	The main barrier has been trying to just like know where I'm going
	UI/204	The other thing about time isn't it really because then you've got to go and walk
	UI/275	A designated area and a book in slot
	FI/197	In an ideal world if there was like an outdoor working spot
	FI/202	If there was like a set area
	FI/277	I wouldn't want to trudge round campus
	FI/491	It's the level of thinking and planning that wasn't I wasn't able to do
Lack of knowledge of the outdoor area		
	UI/35	Where shall I go
	FI/185	I don't know it that well
	FI/277	I wouldn't want to trudge round campus
Trade-off well-being versus work focus		
	UI/38	I can sort of enjoy
	UI/49	I think the benefits are really big it's just the logistics of sorting it out are quite difficult.
	UI/137	I suppose an office environment is designed to keep you focused whereas outdoor you might I do know my well-being
Senses		
Touch - air	FI/90	Both really [air to breathe and feel on the skin]
	UI/224	Getting the fresh air
-rain	FI/451	I don't even care it were raining

-warmth	UI/224	The warmth aswell
	UI/233	Feel the warmth
	FI/382	The sun's warmth
-sun	UI/44	Feeling the sun
	FI/370	Feel the sun
	FI/406	The sun
Visual	FI/110	It's nice to look at
	UI/159	More things to look at
	FI/54	I'd sort of watch the seasons change out of the window but you know it was in the town centre so it wasn't nice
Smell	FI/40	Fresh air
Nature Elements		
Leaves	FI/82	The leaves
	FI/157	All the leaves
Grass	UI/48	And grass
Trees	UI/47	Lovely trees
	UI/132	Watch how trees change
	UI/323	Being around trees
	UI/331	Something about trees
	FI/41	And trees
	FI/114	Just looking at some trees
	FI/157	We've got a lilac tree
	FI/125	Trees I like the kind of sturdiness of a tree
Fresh air	UI/46	Fresh air
	UI/224	Getting the fresh air
	FI/40	Fresh air
	FI/90	Both really [air to breathe and feel of air on skin]
Seasonal changes	UI/132	I like to watch how trees change through the seasons
Shade	UI/223	I'll have the shade
Plants	FI/41	Yeah around plants
	FI/331	All the different plants
	FI/350	Little things like you know plants
Birds	FI/123	Watch what the birds do

Rabbits	FI/336	There were rabbits
	FI/347	Seeing the rabbits
Animals	FI/333	Seeing the animals
	FI/350	And animals
Increased stress		
Time related	UI/62	If I'm really busy it's like I don't think I've got the headspace
	FI/208	It's another sort of consideration for the day
	FI/497	I didn't have the headspace you know to I didn't want to go out and wander round
Endorsement		
Colleagues	UI/85	They all said oh that's really interesting
	UI/259	It's more legitimate because it's part of a study
Management	UI/272	I do kind of feel like I have to ask permission
	UI/284	They're a very supportive
	UI/341	Feeling like you need to ask for permission to do it
	UI/345	I feel like a lot of people would probably feel the same
	UI/354	I just don't know where that feeling of it being legitimised comes from
	FI/508	It might just be me
	FI/520	In my previous work if you were working from home you were seen as bit of a skive
Technology		
	UI/123	It is hard to work on a little screen
	FI/189	You've only got a little laptop screen
Awe	UI/130	It's just alive
	FI/103	It's just vital

	FI/110	It's nice to be in and obviously it's massively important to well to everything really on earth
	FI/120	It just does what it does and it exists it's like a you know world that exists alongside humans
	FI/125	That just goes on
	FI/158	The buds for next year are there already
	FI/162	I just think it does that each year it's just kind of doing it
	FI/468	It just feels a bit lifeless really indoors and I I don't know I don't think I really appreciated until fairly recently what it really means for me to be outside
Breaks		
	UI/141	I'd probably have a break every few minutes
Natural regular micro-breaks		
	UI/147	it's very easy for a couple of hours to go past without even looking up but if you're in nicer surroundings like this for instance I'd probably be more inclined to yeah maybe even look up
	UI/155	I don't think you can focus on something for very long effectively so having more things to look at and things and being in a different surrounding where things are happening I suppose.

Non-committed to working outdoors		
	UI/197	I've got a gap you know where I can choose to go outside if I want
Lunchbreaks		
	UI/212	Found a nice spot for lunch
	FI/320	Having lunch on my own at work I tend to go for a little walk and I like going to St George's Fields
Freedom		
	UI/231	Cooped up all the time
	FI/42	Not just couped up in an office
	FI/47	I don't like being contained like that you know what I mean it's just nicer a nice atmosphere, nicer to be outside.
	FI/396	Just release and like and just relief just seems to wash over me
Positive affect		
	UI/238	Just being inside that much I just don't think it's good for you
	UI/165	It just makes you feel better
	UI/316	Being outside of an office environment at least some of the week is good for me
	FI/115	just feel like inspired by it also just sort of calm
	FI/404	Like a shower
	FI/243	It just felt nicer
	FI/337	It just makes you smile
	FI/371	Any opportunity

	FI/380	It can be quite depressing really I suppose the lack of light in winter I'll always go out and try and just get that feeling
	FI/483	There's still plenty to feel good about outdoors
Change to workspace practice		
	UI/304	I suppose we've made hybrid working work
	UI/311	I would never have been able to do anything like this you know I were very much pinned to my desk
Connected to nature		
	UI/320	I've been doing a lot more sort of outside exercise this year
	FI/65	At least being outside
	FI/104	Vital I think to the life really you know as a human being
	FI/346	Especially seeing the rabbits
Mindfulness		
	UI/324	Really like grounding
	FI/90	Mindful experience
	FI/112	It's grounding
	FI/330	Looking at all the different plants
	FI/349	so just tiny little things like you know plants and animals
	FI/426	And meditation and they both do just like lowering sort of I feel more in my body
Memories		
Trees	UI/326	We had quite a few trees in the we had quite a big garden when I was growing up but where I used to ride

		me bike was in woodland and stuff
View from a window can be ok when weather bad		
	FI/78	Where I'm working now at home I don't mind watching the seasons change out of this window because I can see into the garden
Space creates the same feeling in a person		
	FI/248	I think boring offices are pretty uninspiring
	FI/257	I'm more keen to get out of a pretty grey office and get outside because erm the day to day surroundings are pretty uninspiring
	FI/260	Looking at well what was around me was nicer
	FI/452	It's about the environment I'm in as much as what I'm doing
	FI/467	It just feels a bit lifeless really indoors
	FI/480	That's what it does to me really
Lifted mood continues inside		
	FI/338	Then you take that in back in
Outdoor activities		
Socialising	FI/364	If someone's had a birthday or something we've gone outside and you like had some cake
Running	FI/425	Really focusing on running
	FI/446	Going running is just as much about being outdoors as the exercise

		FI/471	Everything that I like doing really is sort of outdoor activities
Re-evaluation of time spent outdoors			
		FI/422	This year I've been focusing a lot
3 words to describe being outdoors			
		FI/476	Freedom, peace, positivity

Appendix xvi - Superordinate themes across participants

    1. Management endorsement –(41, 46, 47)
                                      -management/workforce trust (47)
                                        -legitimate workspace (47)
                                        -colleague endorsement (41, 46, 47)
                                        -normalisation of working outdoors (47)
                                        -will continue to access outdoors to work (41, 46, 47)
                                        -like regular outdoor access (47)
                                        -subject to personal preferences (46)
                                        -no minimum/maximum duration set (47)
                                        -allows autonomy and spontaneity (41, 47)
                                        -management role uncertainty may affect the decision to back this initiative (41)
                                        -questions raised over how many people at one time (41)

    2. Affordances of space –(41, 42, 46, 47)
                                        –lack of defined area (46)
                                        -not coming onto campus much to use (41, 42, 46)
                                        -not committed to as no defined area (41, 46)
                                        -seen as a change to workspace practice (46)
                                        -have to be seen at indoor desk when on campus (42)
                                        -outdoors and working historical separate (47)
                                        -dichotomy between wanting to and doing work outdoors (41, 46)
                                        -use of a local park (3rd workspace) (42)
                                        -indoor working is normalised (47)
                                        -viewed negatively (46)
                                        -use of motivated by being part of the study (46)
                                        -increased knowledge of the outside space (41, 47)
                                        -lack of knowledge of outdoor space a barrier to use of the space (46)
                                        -relief from negative physical symptoms (47)
                                        -relief from lack of temperature/air control indoors (47)
                                        -tricky to balance needs of staff and students (41)
                                        -Tables, sockets, desks, shade (46, 47)

- Weather -implications of (41, 42, 46)

-no implications of (47)
-when weather bad a view of
nature can be ok (46)

3. Tasks –reading (42, 46, 47)
    -writing (47)
    -emails (47)
    -need planning ahead (46, 47)
    -walk and talk (41)
    -subject to priorities which determines if can work outside (42)
    -limited outdoors (41)
    -overload indoors as focus on too many tasks at once (47)
    -focus on (42, 47)
    -increased productivity (42)
    -use of technology–positive lack of outdoors (41, 42)
        -negative lack of outdoors (41, 42, 46)
        -a constant distraction (42, 47)
    -breaks -to do a particular task (41, 42)

    People -post Covid social stress (47)
      -solitude preference (47)
      -lack of interaction outdoors (47)
      -negative distractions outdoors (46)
      -as distractions outdoors – not relevant (47)
      -too much noise from anyone or anything anywhere a
distraction (47)

4. Nature -leaves (46, 47, 42, 41)
            -flowers (41, 47)
            -air (41, 42, 46, 47)
            -tree (42, 46, 47)
            -grass (41, 42, 46, 47)
            -plants (46)
            -seasonality (46)
             -natural shade (42, 46)
             -birds (41, 46, 47)
             -sun (41, 42, 46, 47)
             -animals (46, 47)
              -hedges (47)
             -natural light (47)
             -openness (42)
             -driver to taking work outdoors (47)
              -immersion within (47)
              -connection to nature (41, 42, 46, 47)

-negative about people not connected to nature (41)
-memories of (41, 42, 46, 47)

5. Senses – touch -air (41, 42, 46, 47)

-grass (42, 47)

-sun/warmth (41, 46, 47)

-rain (46,47)

-wind/breeze (47,41)

-air to breathe (41, 42, 46, 47)

-lack of air indoors (41, 42, 46, 47)

Senses – visual – flowers (41)

-reduction in close work (41)

-nature (47)

-lack of indoors (46)

Senses – audio -trees (47)

-leaves (47)

-birds (41)

-quiet (41)

Senses – smell -air (47)

6. Positive affect –(41, 42, 46, 47)
-person takes on feelings which are represented within the outdoor space (41, 46, 47)
-physical release of stress (47)
-positive affect taken back indoors (41, 46, 47)
-negative affect (stress) felt indoors (47)
-reduction in workload anxiety (47)
-micro-breads whilst working (46, 47)
-relief from negative physical symptoms (47)
-trade-off positive affect and work focus (46)
-vicarious positive impact on colleagues (47)
-positive re-evaluation of time spent in nature including for leisure activities (46)

Awe –(46, 47)

-freedom (41, 42, 46, 47)

7. Mindfulness –(46,47)
  -self-regulation (47)
  -self-reflection (47)
  -take back control -tasks (47)
                     -mood (47)
  -lack of self-regulation indoors (47)
                           -due to time of day (47)

Appendix xvii - Master table of themes for the group

Themes and Super ordinate themes	Data/Line
1. Management Endorsement	
Management endorsement	
41: I've never told them not to	FI/111
41: Outdoor working should definitely be encouraged	FI/420
46: I do kind of feel like I have to ask permission	UI/272
46: Feeling like you need to ask for permission to do it	UI/341
46: I feel like a lot of people would probably feel the same	UI/345
47: My line manager is very supportive	UI/124
47: My manager is supportive	UI/134
47: I don't need to feel guilty about leaving my desk and going and working outside	FI/115
47: When I first did it the very very first time I went out I did feel a little bit guilty	FI/122
47: She was like you don't need to be always working. You need to have some time away	FI/620
47: She's brilliant, she's really good she's all for us doing whatever we need to do that helps us that keeps us going	FI/631
Management/workforce trust	
47: I'm just popping out for an hour and she'll be like yeah ok	UI/126
47: I come back and they usually say you alright and I say yeah good and that's all and that's all that's really needed so	UI/138
Legitimate workspace	
47: I'm gonna go out I'm gonna go out and work outside.	FI/154
Colleague endorsement	
46: They all said oh that's really interesting	UI/85
46: It's more legitimate because it's part of a study	UI/259
47: Our other colleague she knows aswell but no she never sort of says	UI/149
Normalisation of working outdoors	
47: At home as well I will still do it at home because while the pressure's still whilst it is a different environment the work pressures are still there	FI/592
47: I'm not skiving if you like I'm actually doing work	FI/625
Will continue to access outdoors to work	

41: Yeah I think so [non-committed to working outside when team is larger	FI/297
46: I'd probably have to be doing something fairly routine	FI/222
47: I think I will yeah	FI/7
47: It is something that I will continue doing	FI/564
Like regular outdoor access	
47: Even when I work from home I do try to get out once a day	FI/431
47: I wish I'd done actually all through the day	FI/558
Subject to personal preferences	
46: I did try to arrange a meeting outside	AD/66
46: I did try and organise a meeting outside	FI/192
Allows autonomy and spontaneity	
41: I now line manage 2 new people and they quite often like go for a 5 minute walk around the block	FI/18
47: I have got the ability now I can do this I don't need to feel guilty about leaving my desk	FI/114
47: I say right I'm going out	FI/128
47: I like the freedom of being able to do what you want being able to do what you need being able to seek out what you need	FI/314
47: I think that would definitely benefit me	FI/352
47: I would then feel oh I've got to go there and it would become almost a chore	FI/355
47: I think being able to do that that's beneficial.	FI/377
Management role uncertainty may affect the decision to back this initiative	
41: We are kind of homeless	FI/300
Questions raised over how many people at one time	
41: Yeah I think so [non-committed to working outside when team is larger	FI/297
Being seen at work	
42: I go to the office when I have face to face meetings of course and secondly if I have to meet with colleagues and when I want to see more people basically	UI/36
42: If they choose face to face sure I go to campus	UI/67
42: Fix a couple of days so it's easier for me to plan my week	UI/102
42: I want to actually be seen in the office	FI/47

2. *Affordances of space*	
Affordances	
41: A couple of picnic tables	FI/327
41: Bike shed is down some steps	FI/372
41: My bike is really big and heavy ebike I can't lug it up and down some steps	FI/386
42: My office at home has a window	UI/31
42: More uncomfortable to write	UI/159
42: It doesn't work	UI/194
42: A lot of us make the effort to make it as comfortable as possible like the position of the screen the position of the keyboard	UI/204
42: Chair was not that comfortable	UI/219
42: Not very comfortable	FI/193
46: Not just gonna sit somewhere on a wall	FI/67
47: The practicalities of not just having a seat having somewhere erm if I have taken my laptop out taken my notebook out having somewhere I can place at a height where I can work at.	UI/80
Lack of defined area	
46: I needed to figure where I'm gonna go	UI/23
46: Well where shall I go	UI/35
46: It's an extra thing to think about	UI/59
46: The main barrier has been trying to just like know where I'm going	UI/71
46: The other thing about time isn't it really because then you've got to go and walk	UI/204
46: A designated area and a book in slot	UI/275
46: In an ideal world if there was like an outdoor working spot	FI/197
46: If there was like a set area	FI/202
46: I wouldn't want to trudge round campus	FI/277
46: It's the level of thinking and planning that wasn't I wasn't able to do	FI/491
Not coming onto campus much to use	
41: Bit sporadic	UI/8
41: Parking situation is difficult	UI/20
41: Working from home	UI/77

42: I go to the office when I have face to face meetings of course and secondly if I have to meet with colleagues and when I want to see more people basically	UI/36
42: I want to actually be seen in the office	FI/47
46: The buses have been on strike	AD/42
46: Been on jury service!	AD/62
46: Was a bus strike	UI/18
46: Then I went on holiday	UI/20
46: I had a week off as well	FI/4
Not committed to as no defined area	
41: Shelter would be nice	FI/399
46: I needed to figure where I'm gonna go	UI/23
46: Well where shall I go	UI/35
46: It's an extra thing to think about	UI/59
46: The main barrier has been trying to just like know where I'm going	UI/71
46: The other thing about time isn't it really because then you've got to go and walk	UI/204
46: A designated area and a book in slot	UI/275
46: In an ideal world if there was like an outdoor working spot	FI/197
46: If there was like a set area	FI/202
46: I wouldn't want to trudge round campus	FI/277
46: It's the level of thinking and planning that wasn't I wasn't able to do	FI/491
Seen as a change to workspace practice	
46: I found it extremely difficult	FI/180
Have to be seen at indoor desk when on campus	
42: I want to actually be seen in the office	FI/47
Outdoors and working historically separate	
47: Never I've never really worked outside I've never really considered it I've never really thought of it	FI/102
Dichotomy between wanting to and doing work outdoors	
41: Could have sat outside but they tend to be few and far between	UI/57
46: I'd probably have to be doing something fairly routine	FI/222
Use of a local park (3rd workspace)	
42: Gone to the park to sit and read	FI/67

Indoor working is normalised	
47: I think there is an expectation of people when they're in work to actually remain within the office	UI/127
Viewed negatively	
46: I found it extremely difficult	FI/180
Use of motivated by being part of the study	
46: I decided to work outdoors because having signed up for the study	AD/6
Increased knowledge of the outside space	
41: I still get lost	UI/87
41: They've considered I think that as part of the development	FI/366
Lack of knowledge of outdoor space a barrier to use of the space	
46: Where shall I go	UI/35
46: I don't know it that well	FI/185
46: I wouldn't want to trudge round campus	FI/277
Relief from negative physical symptoms	
47: I feel a lot better now	AD/24
47: I feel better and ready to continue.	AD/27
Relief from lack of temperature/air control indoors	
47: We're so high up so when it's hot and stifling it doesn't happen it doesn't come in no matter how hard much try	FI/185
Tricky to balance needs of staff and students	
41: It's also quite nice to have these quiet spaces for us as well	FI/342
Tables, sockets, desks, shade etc	
46; Maybe some shade	UI/106
46: There were some tables set up	AD/13
46: Pub style tables	FI/297
46: If there was an outdoor working space where you could book a seat	UI/74
46: Having a proper desk	UI/114
46: A docking station where you could plug in	UI/104
46: You can't plug in	FI/189
47: The practicalities of not just having a seat having somewhere erm if I have taken my laptop out taken my	UI/80

notebook out having somewhere I can place at a height where I can work at.	
Weather – implications of	
41: If it's not raining	FI/197
41: Shelter would be nice as well because then you can make more use of it for longer periods around the year	FI/400
42: It has not to be raining	UI/150
42: In winter it would work very very differently	UI/265
42: If it's raining it's you cannot work	UI/284
42: If the weather allows	FI/75
46: It was quite cold and windy	AD/26
46: It was kind of windy	UI/29
46: The weather is obviously a big one	UI/64
46: It's too hot	UI/171
46: The weather is unpredictable and it's cold and stuff	FI/74
46: Were a warm sunny day I'd be like oh I'd probably go out for the afternoon	FI/275
Weather – no implications	
47: Despite it being grey and cold	AD/26
47: Little bit damp laughing it's muggy and a little bit drizzly but it was nice	AD/112
47: It's sunny and rather than waiting till lunch time I'm gonna go and have half an hour and go and work outside	FI/155
When weather bad a view of nature can be ok	
46: Where I'm working now at home I don't mind watching the seasons change out of this window because I can see into the garden	FI/78
Physical pain from non-fit for purpose	
47: Have to sit in an awkward and then I get a pain in my back or my legs	UI/88
3. Tasks	
Reading	
42: I think it's very particular for reading	UI/226
47: Have a look through	AD/16
Writing	
47: And writing	AD/17
47: Spreadsheets are correct	FI/206

Emails	
47: Smash through all of the emails	AD/78
47: I did a lot of emails	AD/182
47: And do emails	FI/20
Need planning ahead	
46: It's the level of thinking and planning that wasn't I wasn't able to do	FI/491
47: I've tried planning and planning doesn't work	UI/477
Walk and talk	
41: Have a walk and talk	AD/8
41: I now line manage 2 new people and they quite often like go for a 5 minute walk around the block just to get a bit of fresh air and I try and do that too	FI/18
41: Lap of the terraces	FI/50
41: Walking round the block	FI/83
41: It's quite regular	FI/91
41: Walking and talking	FI/129
Subject to priorities which determines if can work outside	
42: You have a deadline and everything but my own deadline goes before reviewing a paper [limiting outdoor time]	UI/88
Limited outdoors	
41: Don't know if I'd actually want to sit on my computer and work outside	AD/6
41: I need two monitors	UI/31
Overload indoors as focus on too many tasks at one	
47: But when I'm in the office there's still the constant can I just ask this can I just check that can I just do this have you go that so it's kind of like I go into overload	UI/303
Focus on	
42: A lot of attention	UI/57
42: It helps me to focus	UI/174
42: I can just focus on this	FI/86
Increased productivity	
42: I do it much much faster	FI/88
Use of technology – positive lack of outdoors	

41: Don't know if I'd actually want to sit on my computer and work outside	AD/6
41: Away from the screen	FI/24
41: Away from screens	FI/32
41: It's for a break	FI/55
41: Completely away from that	FI/79
41: Walking bit is important rather than sitting down then you might just get your phone or your laptop	FI/85
42: It helps to not have the email in front of you open	UI/163
42: I don't have the computer sat in front of me or the emails coming in	UI/176
42: Not on the computer	UI/232
42: Getting away from the computer	UI/252
42: I don't get distracted by the phone	FI/81
42: It's easier to get away and focus on the reading	FI/101
Use of technology negative lack of outdoors	
41: I need two monitors	UI/31
41: It's quite tricky	UI/34
41: Don't have many meetings that aren't involved around showing a website or the VLE	UI/37
41: Difficult to work from a laptop	FI/125
41: Can't do the majority of my work outside	FI/132
42: It doesn't work is uncomfortable	UI/194
42: Working outside with laptop is not very comfortable.	FI/192
42: I am a bit picky as well with the I don't really like working on laptops	FI/198
46: It is hard to work on a little screen	UI/123
46: You've only got a little laptop screen	FI/189
Technology as a constant distraction	
42: I get distracted	FI/70
42: You still get distracted because you still see the emails come in	FI/92
47: I struggle to focus on doing just one thing because an email will just pop up a teams will just pop up	UI/295
47: When I have projects on I switch off emails and I switch off teams	UI/300
47: I would put an out of office onto my email, I'm working on a project I'll answer you this afternoon and I would switch my emails and teams off	FI/212
Breaks to do a particular task	
41: In a gap between things	FI/96

42: A nice break during the day so that so when you have this time allotted to reviewing this thing instead of sitting in the same place	UI/151
42: It kind of breaks the day	FI/120
42: Breaks the day in two blocks	FI/128
Impact of people on tasks – post covid stress	
47: I'm realising I'm finding it more and more difficult to be in the office when there's more than just either me or just one other person in there than when all 3 of us are in it's a little bit too much for me so I think I'm probably gonna be coming out	AD/83
Solitude preference	
47: I was a billy no mates	AD/109
47: I've struggled with having to talk to people	UI/13
47: More for solitude	UI/27
47: We've always gone separately	UI/148
47: I am quite a solitary person	UI/162
47: I like me I like to be with me	UI/166
47: I come to work in silence and I go home in silence	UI/187
47: Get away from people	FI/8
Lack of interaction outdoors	
47: It was quite busy there were people milling about	AD/45
47: There's people walking past and things like that but I'm not being disturbed	AD/69
47: If it's busy outside I think the beauty is I'll get ignored	AD/101
47: People wandering by but they're all quiet	AD/139
47: It's quite busy but it's not annoying or irritating or anything like that everybody is just chatting and getting on with what they need to be doing so	AD/159
47: It was busy but it was good	AD/175
47: A few students walking by	AD/200
47: People walk by and they see that you're working or they see that you are doing something and they either if you look up they either smile or they nod or they just walk by	AD/209
47: If I'm outside I can block it out	UI/63
47: People walking past and they're chatting but they're talking amongst themselves	UI/221
47: I'm happy to sit outside where there's a lot going on	FI/16
Negative distractions outdoors	
46: I felt quite distracted	AD/20
46: There were things blowing onto my laptop screen	UI/29

46: That was quite distracting	UI/162
46: Have to be doing something fairly routine	FI/222
People as distractions outdoors – not relevant	
47: It's quite busy but it's not annoying or irritating or anything like that everybody is just chatting and getting on with what they need to be doing so	AD/159
Too much noise from anyone or anything a distraction	
47: I think if I was sitting by the side of the road I think oh I need to move	UI/206
4. Elements of nature	
Leaves	
41: Nice leafy campus	FI/224
42: The leaves	FI/140
46: The leaves	FI/82
46: All the leaves	FI/157
47: Listening to the leaves rustling	AD/139
Flowers	
41: I like a nice tended flowerbed	FI/158
41: Beautiful wildflowers	AD/17
41: I also love wildflowers	FI/160
47: The flowers	AD/75
47: It's flowers	UI/325
Air	
41: A bit of fresh air	FI/20
41: Both [to breathe and feel] I suppose	FI/37
41: Have some fresh air	FI/100
42: I think air	FI/214
46: Fresh air	UI/46
46: Getting the fresh air	UI/224
46: Fresh air	FI/40
46: Both really [air to breathe and feel of air on skin]	FI/90
47: If it's been too warm in the office and I'm like uurgh we can't get any air in	FI/158
Trees	
42: Under a tree	UI/158
42: Be amongst the trees	FI/114
42: The trees	FI/140
46: Lovely trees	UI/47

46: Watch how trees change	UI/132
46: Being around trees	UI/323
46: Something about trees	UI/331
46: And trees	FI/41
46: Just looking at some trees	FI/114
46: We've got a lilac tree	FI/157
46: Trees I like the kind of sturdiness of a tree	FI/125
47: Under the tree	AD/110
47: Looking at trees	AD/138
47: There has to be trees	UI/250
47: It's trees	UI/326
47: Hear the trees	UI/259
47: Looking at trees	FI/362
Grass	
41: Just grass	FI/160
42: The grass	UI/158
42: Sit on the grass	FI/114
42: The grass	FI/140
42: And grass.	FI/214
46: And grass	UI/48
47: Wanting the feel of the grass	FI/388
Plants	
46: Yeah around plants	FI/41
46: All the different plants	FI/331
46: Little things like you know plants	FI/350
Seasonality	
46: I like to watch how trees change through the seasons	UI/132
Natural shade	
42: You can go out erm sit in the shade	UI/156
46: I'll have the shade	UI/223
Birds	
41: Birds singing	AD/5
46: Watch what the birds do	FI/123
47: There are birds	UI/205
47: What's that bird	UI/261
47: It's birds constantly chattering	UI/326
Sun	
41: Sun is shining	AD/5
42: You have to read something and it's sunny outside	UI/280

46: Feeling the sun	UI/44
46: Feel the sun	FI/370
46: The sun	FI/406
Animals	
46: There were rabbits	FI/336
46: Seeing the rabbits	FI/347
46: Seeing the animals	FI/333
46: And animals	FI/350
47: It was just fantastic	UI/361
Hedges	
47: Still got hedges	UI/329
Natural light	
47: Daylight is the most is very very helpful	FI/42
47: I think the light	FI/51
47: It just feels like it's more restful	FI/62
Openness	
42: Open	FI/214
Driver to taking work outdoors	
47: I decided to come and sit outside because it's really cold in Parkinson and it's quite sunny outside	AD/153
47: It's very quiet it's nice	AD/200
Immersion within	
47: It most definitely the being close to the nature side of it is a definite thing for me	UI/264
Connection to nature	
41: I like gardening	FI/157
41: I've always been a bit of an outdoorsy person	FI/214
42: I was working outside like in the garden with my laptop and sure it was nice	UI/217
46: I've been doing a lot more sort of outside exercise this year	UI/320
46: At least being outside	FI/65
46: Vital I think to the life really you know as a human being	FI/104
46: Especially seeing the rabbits	FI/346
47: Being an outdoor person	UI/70
47: Like the front of my house	UI/324
47: I am very an outdoor person	UI/341
47: I love to be outside	UI/351

47: I'm very much a nature person	FI/25
47: I am more of a nature person	FI/90
47: If I can be outside	FI/249
47: I've always been an outdoor person	FI/439
Negative about people not connected to nature	
41: I've never understood these people who just spend their lunchbreak at their desk	FI/201
41: People staying in more	FI/213
Memories of home	
41: In my own garden	FI/158
47: Where I live is very similar to this	UI/321
47: I have a section of my garden actually which does look like this	UI/351
Memories of childhood	
42: I am from Chile right and you have parks	FI/148
42: I always like to go to parks	FI/168
42: We would eat a lot and then go and lay in the grass and play around.	FI/181
46: We had quite a few trees in the we had quite a big garden when I was growing up but where I used to ride me bike was in woodland and stuff	UI/326
47: As a child I spent so much time outside	UI/342
47: Describe it was just fantastic	UI/360
47: It's very hard to explain it it's just lovely	UI/381
5. Senses	
Touch - air	
41: Nice gentle breeze	AD/16
41: Both [air to breathe and feel on the skin]	FI/37
41: Out for some fresh air	FI/111
42: Mostly the air that you breathe	FI/218
42: Both but mostly the air that you breathe [and air on skin]	FI/218
46: Both really [air to breathe and feel on the skin]	FI/90
46: Getting the fresh air	UI/224
47: That's quite windy	FI/173
47: Because you got a breeze	FI/175
47: Pretty much both [air to breathe and feel of air on skin]	FI/79
Touch - grass	
42: Sit down and read	FI/75
42: You sit on the grass	FI/150

42: Being and to sit in the grass is it	FI/158
42: Go and lay in the grass	FI/182
47: The feel of the grass between the toes	FI/388
Touch – sun/warmth	
41: The sun is shining	AD/6
46: The warmth aswell	UI/224
46: Feel the warmth	UI/233
46: The sun's warmth	FI/382
46: Feeling the sun	UI/44
46: Feel the sun	FI/370
46: The sun	FI/406
47: It's quite sunny outside	AD/155
47: Where it's warm	AD/167
47: Warm into the sun	AD/178
Touch - rain	
46: I don't even care it were raining	FI/451
47: A little bit drizzly	AD/113
47: I was letting myself get wet	FI/549
Touch – wind/breeze	
41: Nice gentle breeze	AD/16
47: I need the wind blowing on me	UI/93
47: Wind on your face	FI/389
Touch – air to breathe	
41: Both [air to breathe and feel on the skin]	FI/37
42: Both but mostly the air that you breathe [and air on skin]	FI/218
46: Both really [air to breathe and feel on the skin]	FI/90
47: Pretty much both [air to breathe and feel of air on skin]	FI/79
Touch – lack of air indoors	
41: Out for some fresh air	FI/111
42: I think it relates somehow with the air that you are breathing fresh air not recycled air a	FI/242
46: Getting the fresh air	UI/224
47: If it's been too warm in the office and I'm like uurgh we can't get any air in	FI/158
Visual - flowers	
41: See beautiful wildflowers	AD/17
Visual – reduction in close work	
41: Staring at words or pictures	FI/65

Visual - nature	
47: it's green there has to be something there has to be trees there has to be something green	UI/249
Visual – lack of indoors	
46: More things to look at	UI/159
Audio - trees	
47: Hear the trees rustling, the noises from the trees	AD/259
Audio - leaves	
47: Listening to the leaves rustling	AD/139
Audio - birds	
41: Hear the birds singing	AD/5
41: Aware of say birdsong	FI/264
Audio - quiet	
41: Quite quiet	AD/14
Smell - air	
47: It's the smells	FI/447
6. Well-being	
41: Nice out here	AD/10
41: It's nice I like it	AD/18
41: Literally fresh air	FI/29
41: In a different frame of mind	FI/59
41: Space for your thoughts	FI/67
41: Bit of headroom	FI/72
41: Getting through	FI/100
41: Appreciate having those spaces	FI/225
41: Headspace and a sense of calm	FI/232
42: I do notice that when I don't do that I get more stressed I don't feel as good	FI/116
46: Just being inside that much I just don't think it's good for you	UI/238
46: It just makes you feel better	UI/165
46: Being outside of an office environment at least some of the week is good for me	UI/316
46: Just feel like inspired by it also just sort of calm	FI/115
46: Like a shower	FI/404
46: It just felt nicer	FI/243
46: It just makes you smile	FI/337

46: Any opportunity	FI/371
46: It can be quite depressing really I suppose the lack of light in winter I'll always go out and try and just get that feeling	FI/380
46: There's still plenty to feel good about outdoors	FI/483
47: Really enjoyed	AD/27
47: I feel a lot better a lot calmer	AD/50
47: A lot more calm	AD/80
47: But it was nice	AD/113
47: Is lovely	AD/130
47: It's so lovely	AD/137
47: Really relaxing time	AD/147
47: It's quite nice	AD/162
47: It was good	AD/175
47: It's nice	AD/199
47: It was nice	AD/205
47: It's great	AD/215
47: I've been out a couple of times	UI/37
47: Helping me mentally	UI/54
47: Mentally it's helping	UI/70
47: For me is peaceful this is tranquil	UI/209
47: Drop the shoulders breathe out	UI/283
47: Right frame of mind	UI/287
47: Really helpful	UI/309
47: It just made me feel I don't know happy at sort of at peace	UI/374
47: It was nice	UI/422
47: I'm alright	UI/458
Person takes on feelings which are represented within the outdoor space	
41: And the sustainability garden I suppose I love what it stands for because I'm personally interested in sustainability	FI/171
41: I'd definitely go to St Georges Field if the weather's nice and I'm on campus. The sustainability garden is more somewhere I pass through depending on where I'm going to but I probably wouldn't stop there [spend time – peace or pass through – motivated to act]	FI/180
41: It doesn't feel as sort of intense as having the same conversation in the office	FI/262
46: I think boring offices are pretty uninspiring	FI/248
46: I'm more keen to get out of a pretty grey office and get outside because erm the day to day surroundings are pretty uninspiring	FI/257
46: Looking at well what was around me was nicer	FI/260

46: It's about the environment I'm in as much as what I'm doing	FI/452
46: It just feels a bit lifeless really indoors	FI/467
46: That's what it does to me really	FI/480
47: It can sometimes feel a little bit ominous you know what I mean pushing down just like closing in and things like that with the work environment, the sterileness of the work environment	FI/256
47: I already had that kind of feeling the pushing down and the tightening up and I was just like it's just another thing to add to what's going on today	FI/515
Physical release of stress	
47: I feel a lot better now	AD/24
47: I feel better and ready to continue.	AD/27
Positive affect taken back indoors	
41: Fresh air before getting through the last hour or two of the day	F1100
46: Then you take that in back in	FI/338
47: Ready to continue.	AD/28
47: I can face the rest of the afternoon inside	AD/49
47: I'm more focused in towards being able to be in the office	AD/81
47: Ready to take on what's happening in the office	UI/428
47: It's almost like starting a new day going back in	UI/443
Negative affect (stress) felt indoors	
47: It's as if it becomes unhealthy whilst I'm inside as if it's like I don't want to be here I don't want to do this I don't want to do this and or I can't concentrate	UI/290
Reduction in workload anxiety	
47: I was starting to get a little bit anxious that I wasn't going to be able to get everything done that I needed to	AD/51
Relief from negative physical symptoms	
47: I feel a lot better now	AD/24
47: I feel better and ready to continue.	AD/27
Trade-off positive affect and work focus	
46: I can sort of enjoy	UI/38
46: I think the benefits are really big it's just the logistics of sorting it out are quite difficult.	UI/49

46: I suppose an office environment is designed to keep you focused whereas outdoor you might I do know my well-being	UI/137
Vicarious positive impact on colleagues	
47: It's been a really good experience for me	FI/98
47: I think as well it's making me a better colleague for my colleagues at work	FI/284
Positive re-evaluation of time spent in nature including for leisure activities	
46: If someone's had a birthday or something we've gone outside and you like had some cake	FI/364
46: Really focusing on running	FI/425
46: Going running is just as much about being outdoors as the exercise	FI/446
46: Everything that I like doing really is sort of outdoor activities	FI/471
46: This year I've been focusing a lot	FI/422
Awe	
42: I think you are right in the sense of your line of sight that you are reading you take a break and you can see things like in the Leeds park dogs running	FI/244
46: It's just alive	UI/130
46: It's just vital	FI/103
46: It's nice to be in and obviously it's massively important to well to everything really on earth	FI/110
46: It just does what it does and it exists it's like a you know world that exists alongside humans	FI/120
46: That just goes on	FI/125
46: The buds for next year are there already	FI/158
46: I just think it does that each year it's just kind of doing it	FI/162
46: It just feels a bit lifeless really indoors and I I don't know I don't think I really appreciated until fairly recently what it really means for me to be outside	FI/468
47: It's so in your face but it's great it's life it's lovely and it's different it's different	UI/331
47: That to me was heaven	UI/350
47: Getting away from the artificialness of being inside	FI/27
47: The actual being out being out and about and out in the not not being confined to the office	FI/239
Freedom	
41: Getting outside the building	FI/31

41: Out of the office	FI/49
41: Break from office space to non-office space	FI/267
41: Bit of headroom	FI/60
41: It's a bit of headroom	FI/72
42: Then you go you are free	FI/122
46: Cooped up all the time	UI/231
46: Not just couped up in an office	FI/42
46: I don't like being contained like that you know what I mean it's just nicer a nice atmosphere, nicer to be outside.	FI/47
46: Just release and like and just relief just seems to wash over me	FI/396
47: I don't think an enclosed one would be right for me because I need the wind blowing on me	UI/92
47: It's just that the freedom to choose where I want to be	FI/318
47: I like the freedom of being able to do what you want being able to do what you need being able to seek out what you need	FI/314
7. Mindfulness	
46: Really like grounding	UI/324
46: Mindful experience	FI/90
46: It's grounding	FI/112
46: Looking at all the different plants	FI/330
46: So just tiny little things like you know plants and animals	FI/349
46: And meditation and they both do just like lowering sort of I feel more in my body	FI/426
47: I've actually brought myself	AD/64
47: My feet have brought me	AD/129
47: I felt I needed to do this one today	AD/137
47: I've found my go to place	AD/149
47: My little legs have brought me	AD/196
47: I actually did a third recording yesterday I actually did a sitting recording aswell because I felt I needed to	UI/247
47: I need to leave this behind for a moment I need to go out and I need to just sit	UI/276
47: Right what's going on here	UI/285
47: I need to say what I'm feeling	UI/421
47: I go kind of like in my own little world	FI/19
47: Letting my feet take me	FI/311
47: I think it's just what I needed at that time	FI/329
47: Interesting to see where I've gone	FI/340
47: I'm not really fussed where I go today	FI/363
47: I've chosen but it's as I say it's what I've needed	FI/376
47: I can do one thing at once	FI/416

47: Almost a shoulder drop	FI/455
Self-regulation	
47: I just needed to be out of the building away from people	UI/52
47: Sort of like collected myself	UI/281
47: I feel more in control	UI/437
47: It's making me think about how I work and my and my approach	UI/507
47: It kind of puts me into a better better frame of mind	FI/75
47: It does make me even better at what I'm doing when I am there	FI/80
47: People accept that people know that I think my concern was if I wasn't there I was letting people down	FI/133
47: Half an hour and go and work outside	FI/157
47: I'm even more so I'm thinking I'm stronger as a person	FI/291
47: I can feel everything coming up so going out and thinking right we're gonna do this let's just	FI/472
Self-reflection	
47: It's making me think about how I work and my and my approach	UI/507
Take back control - tasks	
47: It's helped me get into that mindset things of things don't need to done straight away, things can wait	FI/138
47: I don't have to go back and do it again	FI/227
47: Able to do what you want being able to do	FI/314
47: Just how I work so to be able to at first being able to do go and just focus on one thing almost kind of felt a little bit strange	FI/411
Take back control - mood	
47: Sort of like collected myself	UI/281
47: I feel more in control	UI/437
47: It kind of puts me into a better better frame of mind	FI/75
Lack of self-regulation indoors	
47: I allow myself to get out of control	UI/438
47: I'm just like really do you have to talk to me right now	UI/463
47: I sometimes think the ad hoc things are the things that make me tense they frustrate me	FI/496
47: The sterile environment	FI/452
Lack of self-regulation due to the time of day	

47: When you first come in you've got a flurry of emails, a flurry of teams you've got a flurry of everything	UI/465
47: It seems to be mornings that I maybe I'm not as tolerant	UI/449
Micro-breaks whilst working	
42: You take a break and you can see things like in the Leeds park dogs running	FI/242
46: It's very easy for a couple of hours to go past without even looking up but if you're in nicer surroundings like this for instance I'd probably be more inclined to yeah maybe even look up	UI/147
46: I don't think you can focus on something for very long effectively so having more things to look at and things and being in a different surrounding where things are happening I suppose.	UI/155
47: I also found myself just looking into space	AD/114
47: I'm just gonna sit here for a few minutes and just take all this in	UI/32

Appendix xviii – Study 3 semi-structured interview questions

UNIVERSITY OF LEEDS

Title

How do people who take their office work outside understand their experience?

Research Proposal Summary

This study will use semi-structured interviews to further investigate subjective meaning and experience when office work is taken outside. Research into the use of biophilia (nature elements) in the workplace has generally focused on bringing the outdoors in. For this study I am looking to build theory in relation to extending the current biophilia and workspace conversation to include the outdoors too. Importantly, I will look to add to Attention Restoration Theory (Kaplan & Kaplan, 1989) through new knowledge and understanding developed through this study. Data analysis will be Grounded Theory where key considerations include the experience of well-being and nature when taking office work outdoors. This will be helpful as we already know that people are taking their office work outdoors at the workplace, at home or in other third workspaces such as parks, but as yet we do not understand why and what the experience holds for people.

Semi-structured interview questions

Introductory question

1. Please confirm your prolific id number

Firstly, enquire further into the answer to the survey question relating to how they felt when they were thinking about taking their office work outside.

2. What were the main reasons for you deciding to take your office work outdoors?
3. You mentioned in your survey answers that you felt……..when you were thinking about taking your office work outside – tell me more about those answers.
4. What is it that you think about when deciding whether or not to take your work outside? This may include colleagues, organisational influences, well-being, needs etc.
5. Is there anything about the outdoors that influences your decision to take your work outdoors?

Working outside

2. What are the specific outdoor spaces which you work in?
3. What is it about the space which means you can work there?
4. What aspects of being outside meet or do not meet with your expectations of what taking your office work outside means for you?

5. How do you feel about your work when you are outside?
6. You mentioned in your survey that you experienced……when you took your office work outside, can you expand on that further please?

Returning inside

2. When you return inside you mentioned in your survey that you felt…..can you please expand on that now.
3. How long do the changes (if any) to how you feel personally and/or about your work continue when you return inside – why do you think that might be?

Overall experience

2. How do you make sense of your overall experience of taking your work outside?
3. What does working outside change for you in terms of yourself and/or your work?

Prompts

18. Tell me more.
19. Can you tell me more about that experience
20. How do you make sense of that
21. Can you describe that a bit more.
22. Can you explain that further
23. Can we explore what you've just said
24. Can you expand on that
25. Why is that
26. Can you give me a bit more detail
27. How often have you felt like this
28. What else
29. I'm really interested in what you've said can you explain that more
30. Carry on
31. Please, continue.
32. Can you just tell me more about that particular point
33. I'm curious about that.
34. That's interesting.

Appendix xix – brief overview of study 3 shown in Prolific

In this study I would like to understand more about your experience of when you take your office work outdoors.

Following on from the first study titled 'do you ever take your office work outdoors' you are now being invited to take part in the second study. The aim of the second study is to talk with you to learn more about your experience when you think about taking your work outside, when you do take your work outside and when you return back inside. This will help to us to understand more about this alternative place of work. You have been chosen to take part in the second stage of this study and you will be directed to page where you will find the study information sheet. Once you are happy to proceed please tick the consent box and complete your Prolific id number.

Study two will involve you taking part in an individual interview with the lead researcher and this will take place over Teams. Access to a digital device with both microphone and camera is necessary for the interview to take place. The interviews will be audio recorded only.

Appendix xx – Study 3 information sheet for semi-structured interviews

Title of study

Do you ever take your office work outside?

Information

In December 2022 you took part in a survey in relation to the above study. You are being invited to take part further in the above research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully feel free to ask me if you are unclear about any aspect of the research study or if you require further information before you decide whether you wish to continue to take part.

Purpose

This research study is being carried out to understand the lived experience of '*how do people who use an alternative outdoor workspace understand their experience of well-being?'.* This will help us to understand why and how people are using an alternative outdoor workspace. This part of the study will be one individual semi-structured interview which will be no longer than one hour in duration. The interview will be audio recorded and will take place over Teams at a convenient time.

Invitation to participate and what is involved

In agreeing to participate you will be one of a small number of individuals who we would like to speak with to hear your thoughts in more detail. The information sought relates to subjective meaning and descriptive understanding from the use of an outdoor workspace and your engagement with the research study will be crucial to any findings. The interviews will take place on Teams and will be audio recorded using Audacity software.

- The interview audio recordings will be transferred to, and be stored securely on the University of Leeds Office 365 one-drive and will comply with the DPA 2018 and the University of Leeds Code of Practice on Data Protection.
- The audio recordings will be transcribed in full using Trint software and by the lead researcher (Sarah Holland).
- The transcriptions will also be stored on the University of Leeds Office 365 one-drive and all data will be stored using a coding system devised by the lead researcher.
- The audio recordings will be used for analysis with small sections of text used within the main thesis and/or any subsequent publications.
- Any quotations used will be anonymised.
- The original data will be stored securely within The University of Leeds Repository once the research study is complete (March 2024)

as the findings may be used for subsequent research studies within this subject area.

The possible benefits of participation

Participants will be paid £11.50 for taking part in the semi-structured interview which will last no longer than one hour. It is hoped that this study will provide a platform from which further study into subjective meaning and use/provision of outdoor workspace is aided.

Consent and Withdrawal

You are free to decide whether you wish to participate in this research study. If you do decide to participate please sign the consent form for participant interview. You may choose to withdraw (delete) your data up to one week from the date of the interview. Contact Sarah Holland (bn17s2eh@leeds.ac.uk) if you choose to withdraw your consent to take part. You do not need to give a reason.

Link to The University of Leeds privacy notice for research participants: https://dataprotection.leeds.ac.uk/research-participant-privacy-notice/

Ethical consideration

This research study has been reviewed and given a favourable opinion by the University of Leeds Business School Research Ethics Committee on 2/9/2021, 15/12/2021, 16/06/2022, 5/12/2022 ethics reference AREA 20-175.

Thank you for taking the time to read through the information. If you require any further information, please contact Sarah Holland via messaging on the Prolific site or by email: bn17s2eh@leeds.ac.uk

APPENDIX xxi – Memo-writing example

This excerpt is helpful for us to know because this is where they start to talk about productivity alongside benefitting from being in nature and taking mini micro breaks as they work. It is interesting how there is a feeling of focus and potentially increased productivity. I understand that we have not measured productivity but this study is about how people feel in terms of their well-being but it seems that well-being is being supported by nature and that this is in turn benefitting the work and vice versa.

APPENDIX xxii – Matrix coding tables

Well-being category linked to codes	Number of times code linked to Well-being category
Productive	64
Less stress	62
Senses	51
Connection to nature	49
Enjoy the good weather	44
Change of environment	38
Location autonomy	33
Focus on work	33

Well-being matrix coding query

Productive category linked codes	Number of times code linked to Productive category
Well-being	64
Focus on work	25
Creativity	14
Enjoy the good weather	13
Specific tasks	12
Change of environment	11
Flexible working	11
Change post pandemic	10
Location autonomy	10
Lack of distractions	10
Trust	10

Productive matrix coding query

Location Autonomy category linked to codes	Number of times code linked to Location Autonomy category
Well-being	28
Flexible working	15
Productive	10
Trust	7
A sense of freedom	6
Accepted by management as viable place to work	6
Change of environment	6

Space crafting	6

Location Autonomy matrix coding query

Negative well-being category linked to codes	Number of times code linked to Negative Well-being category
Location autonomy concerns	8
Well-being	7
Naughty	4
Normalised indoor working	3
Under the radar	2
Productive	2
Outside can be too enjoyable	2
Less focused-productive	2
Colleague negative views	2

Negative well-being matrix coding query

Less focused-productive category linked to codes	Number of times code linked to Less focused-productive category
Well-being	6
Too relaxed	2
Negative well-being	2
Distractions	2
Outside can be too enjoyable	2
Productive	2

Less focused-productive matrix coding enquiry

Location autonomy concerns category linked to codes	Number of times code linked to Location autonomy concerns category
Under the radar	9
Colleague negative views	9
Negative well-being	8
Naughty	5
Affordances	3
Identity	3

Legitimate workspace	3
Not video calls	3

Location autonomy concerns matrix coding enquiry