FACULTY OF SOCIAL SCIENCES,
NORWEGIAN SCHOOL OF HOTEL MANAGEMENT

MASTER'S THESIS

STUDY PROGRAM:	THESIS IS WRITTEN IN THE FOLLOWING SPECIALIZATION/SUBJECT:
MSc of International Hotel and Tourism Leadership	Travel behaviour and Climate change awareness IS THE ASSIGNMENT CONFIDENTIAL? No

TITLE: What do YOU know?
'unaware academics'

AUTHOR		ADVISOR:
Student number:	Name:	Dr. James E.S Higham
203461…	Kristina Anette Vaeng…….	Dr. Åsa H. Grahn
203273…	Mari Øksnevad…….	

ACKNOWLEDGE RECEIPT OF 2 BOUND COPIES OF THESIS

Stavanger, ……/…… 2013 Signature administration:……

Foreword

The purpose of this study was to explore the academics at the Norwegian hotel school and their air travel behaviour and climate change awareness. The foremost intention with this study was to establish a level of understand regarding the academics' climate change awareness. The academics were interviewed, on a face to face basis at the Norwegian hotel school, regarding travel behaviour, climate change awareness and behavioural changes in the past and future regarding air travel.

We would like to take this opportunity to show our gratitude to a handful of people who have been a great support for us throughout this master thesis process.

Firstly our two brilliant advisors need a massive thank you; Dr James Higham of Otago University and Dr. Åsa Grahn of the University of Stavanger.

James; You have been a great source of highly valuable comments and your support and belief in us and the research has been second to none. Even though we have only had contact via emails, it was always felt that you took great interest in our research. The only regret is that you have been so far away, but we hope we have made you proud. Thank you!

We have to extend a big thank you to Dr Truls Engström for pushing through and providing the travel information that no one knew where to find. Not to forget all the academics on the third floor who willingly participated on interviews and provided us with great material. This paper could not have been a reality without your cooperation.

On a personal level, I would like to say a massive thank you to;

Kristina, my co-writer, thank you for endless hours in the gym and for being there throughout. I value our friendship highly and even though it has been a bloody tough year, we made it!

Åsa; You have gone beyond the role of an advisor, always ready to listen, give a gentle (or sometimes a hard) kick in the backside, provide a much needed hug, or just a chat about children, nurseries or jogging, no matter whether it was 2am, lunchtime or at the weekend. Thank you! I could not have done it without you. And the challenge is still on!

I would also like to take the opportunity to thank '*mamma og pappa'* for countless babysitting hours and support during the past two years.

And last, but by no means least, my little monster "I am not little, I am nearly 5" *James*. I am all yours again. *Mamma e kjempegla i deg lille venn*.

Mari Øksnevad

I would like to thank some of the people supporting me tremendously throughout the last months of writing the master thesis:

Firstly *Mari* - Thank you so much for 6 months of hard work and fun! We have been a good team both at the gym and with the thesis, and I have cherished every minute.

Åsa: Without the huge support from you we would still wondered where to start with this thesis. You have been there answering questions night and day and have given us the fuel we needed through the months.

Lastly, *my family*- Thank you for the support I have had throughout the five years living here in Stavanger. It means a lot knowing that you are always there no matter what, even with the miles between us.

Kristina Anette Vaeng

Abstract

The awareness of climate change has grown since the first signs of change. The amount of air travelling has also grown dramatically, both for leisure and business, due to aeroplanes providing everybody with a chance to travel faster and longer. We wanted to research if academics, at the Norwegian Hotel School in Stavanger had more knowledge about climate change and the effect traveling had on the environment. In addition, since tourism is the main subject field of the school how the issue affected the academics travel behaviour on a personal level was addresses as well. The research was conducted in a constructivist epistemological approach. 13 in depth interviews were conducted to collect the data in April/May 2013 in Stavanger. The interviews show that the academics had different views on how important climate change was as an issue for their travel behaviour. Some was in a denial stage and had no worries or plans to change. Although a few did acknowledge that it was an issue, most of our participants did not take the issue too seriously.

Key words: Awareness, behaviour, climate change, air travel and travel patterns.

Table of Contents

List of tables

List of figures

Abbreviations

Carbon dioxide – CO^2

Nitrogen oxides – NOx

The Norwegian hotel school – NHS.

1 Introduction

1.1 Background and purpose of the thesis

The main reason for undertaking this study was due to the number of international guest lecturers we had during our two years on the master program. It was also recognised that our lecturers were travelling frequently to; be a guest lecturer, participate in a conference or conduct research for their own studies. The idea was fuelled by Higham & Cohen (2011) and Cohen & Higham (2010) articles which identified how Norwegians and British were different on a carbon conscious model they developed as seen figure 2.1. We thought it would be interesting to establish how academics within the hospitality and tourism field and part of a Research University would rank, compared to the model. The aim of this research is to establish an understanding about climate change awareness and air travel behaviour among the academics at the Norwegian Hotel School, further referenced as NHS.

Several studies has identified that there is a gap between the awareness and behaviour in regards to climate change and air travel, and through both primary and secondary data collection we will examine if this is the case among the academics.

"The level of knowledge with respect to tourism and climate change can be assessed regionally… and a number of knowledge gaps have been identified (Hall, 2012, p.332). The research showed that many studies have conducted research regarding tourists' awareness of climate change and air travel behaviour (Susilo, Williams, Lindsay & Dair, 2012; Line, Chatterjee, & Lyons, 2012; Becken, 2004; Anable, Lane, & Kelay, 2006; Gössling, Bredberg, Randov, Sandström, & Svensson, 2006; Cohen, Higham, & Cavalier, 2011; Line, Chatterjee, & Lyons, 2010; Murtagh, Gaterslebenm, & Uzzell, 2002; Kollmus

& Agyeman, 2002; Antimova, Nawijn, & Peeters, 2012 & Hares, Dickinson, & Wilkes, 2010). There has been studies on nationalities (Norwegian, British, Hong Kong Chinese and German), tourists at destinations (Zanzibar), young people, the tourism industry (hotels) but only one study we found had some research regarding academics, and only 33 delegates out of 265 were from the industry and 54.5% of them were academics (Becken, 2004) and one study about current tourism students (McKercher & Prideaux (2011). In order to establish if there were any secondary data on the chosen topic, we conducted searches on both Google and Google Scholar in both Norwegian and English with the following search terms in different combinations; academic conference patterns; academics travel patterns; academic mobility; climate change awareness and university employees; tourism experts and air travel behaviour; business travel, university employees; climate change awareness and academics. These word searches revealed very little empirical work. This was also confirmed with searches on ScienceDirect and Ebsco discovery service with the same search terms. The results indicated that academics within Norway (and even the world) have not been a sample for studies regarding air travel behaviour and climate change awareness.

This indicated to us that our selected research angle has not been widely studied and it could therefore be interesting to investigate how the academics at NHS stand in regards to Higham & Cohen's (2011) carbon conscious model (See figure 2.1). We feel that an academic within the tourism and hospitality industry should have a greater knowledge about the latest research within climate change, and we would like to explore if there is a relationship between the levels of awareness regards to climate change, and work related air travel behaviour. We will also examine if the relationship can change over time and with different situations, both privately and work related.

1.2 Research question

Our overall aim with the study is:

"Explore if there is a relationship between the academics business air travel behaviour and climate change awareness?"

This statement will be supported by sub questions which will help us highlight the level of awareness regarding climate change. What their behaviour towards air travels are and if there is a link between what they do (behaviour) and how they feel about it (attitude). This will also be identified with leisure trips and we will hopefully be able to identify if there is a merging of trips i.e. when on a business trip combine it with a family holiday. We also aim to identify if the behaviour change over time and what may be the reason for this change.

Specific objectives:

R1) ***"How aware are the academics about climate change?"***

Evaluate the level of awareness the academics at NHS has about climate change.

This will be identified in how they answer questions about air travel and climate change.

R2) ***"What is the academics attitude towards their personal air travel behaviour?"***

Identify the academics personal air travel behaviour and awareness towards this.

Here we aim to highlight how their personal attitudes are towards business travelling. Do they enjoy it as a benefit or see it as a chore, do they dislike travelling due to climate change issues or family situations?

R3) ***"Is there a tendency to combine work travel and leisure holidays?"***

To highlight if there is a tendency to combine work travel with leisure and do priorities change over time or with differences in family or work situations?

Both interviews and database material analysis regarding travel patterns will hopefully aid us in establishing the amount of air travel undertaken during the past 12 months, both private and work related. This is where we want to identify R3. R1 will be evaluated up against and compared to Higham & Cohen's (2011) continuum (figure 2.1), and try to identify if there is a relationship between the awareness and the amount of air travel undertaken. We will try to identify if behaviour change over time depending on work situation, age, family situation and tenure within NHS and this will answer R2. By highlighting these issues, we feel that we may be able to examine the behaviour of the academics and establish their level of awareness regarding climate change.

1.3 Structure of the thesis

This thesis is divided into six chapters. Firstly we will identify and examine previous research conducted with in the areas of climate change awareness, air travel behaviour and business trips amongst academic staff at Norwegian universities. Concepts and definitions will be established and our empirical gap will be acknowledged and explained as to why this is worth investigating further. Secondly, the method we chose and reasons for this will be explained. In this section we will also describe how we came about with our research question and design and how we conducted our research. Any ethical issues will be highlighted. The following section will then consist of the analysis, how we went on coding the answers and interpret them. Fourthly, the findings will be presented and fifthly, the findings will be discussed in relation to theory. Lastly we will come with a conclusion and recommendation for further studies, present a short discussion on implications that our research may have, both theoretical and management as well as list limitations our research might have.

2.0 Literature review

This section is divided into four different headings. Firstly we will examine the theory related to our topic, starting wide with the tourism industry in general and in specific air travel will be assessed. As our research will investigate academics that undertake business trips, we will then examine the theory about both business travels and academics. Following this, climate change and emissions will be investigated, to identify what has been written and what the impacts are. We will then look at attitude, behaviour and awareness theories and establish what has been stated before and how it fits in with the academics. Lastly, examine the knowledge gap regarding behaviour and attitude researched.

2.1 Travel (air) and tourism

Tourism is an ever growing industry, and is one of the world's largest legal industries (Hall, 2005). In 2012 international arrivals grew with 4% to an all-time high of 1.035 billion passengers (World Tourism Organisation (WTO), 2013). International arrivals do not include same day trips, only overnight stay of minimum one night (WTO, 2013). 51% of the arrivals were to Europe, 23% to Asia and the Pacific region, 16% arrived to the Americas, and 5% each to Africa and Middle East (Kester, 2013). In 2010 WTO (2012) reported that slightly over half of all travellers arrived at their destination by air. However Dickinson and Lumsdon (2010) stated "While air travel is the prime transport mode for just 20% of trips, it accounts for 55% of passenger km and 50% of EU tourism Co2 emissions" (p.27). Which seems to conflict with the findings produced by WTO. Nevertheless it is acknowledged that; "Aviation traffic has increased dramatically over the past 40 years, with passenger traffic growing at approximately 9% per year since the 1960s". "In 2002, global civil aviation clocked up roughly 33billion kilometres, and this is

set to double over the next 20 years" (Brouwer, Brander, & van Beukering, 2008, p.301). This could indicate that in due to the closeness within Europe, people within Europe might chose a different way of travelling, but arrivals to Europe from further afield still rely on air travel. However it does show that aviation is a high polluter and will have an impact on the environment. Graham, Papatheodorou & Forsyth (2008) indicates that travel by air is an important part of the growing global demand for tourism due to the unit of energy used. "Tourism itself can be a carbon-intensive activity both in terms of the travel, and behaviour within, a resort destination" (Barr, Gilg & Shaw, 2011, p.716), however it is the travelling to and from a destination by air, that have gained the most attention.

Høyer & Aall (2005):

> Air transport and tourism have grown like Siamese twins. The connections are just as strong whether it is a matter of scheduled or charter flights, or a matter of production-related mobility's in form of so-called business travellers or leisure time mobility's in the form of holiday travel (p. 266).

In addition to this, it is widely acknowledged that international aviation is an important contributor to global climate change (Becken, 2007). However Anable, Lane & Kelay (2006) states that "the evidence base on attitudes to flying is extremely patchy" (p.33). Whichever way we look at it "tourism is obviously related to climate" (Hamilton, Maddison & Tol, 2005, p.1) and climate change is happening due to tourism as air travel contributes around 14% of effective greenhouse gas emissions (Buckley, 2010) which will be explained under subheading 2.2.

2.11 Business travel

"Business travel is taken to constitute travel on behalf of one's employer for work purposes" (Holley, Jain & Lyons, 2008, p.30) and is "one of the oldest forms of tourism; it is just that the type of business travel has changed over time" (Swarebrooke & Horner, 2007, p.29). It is not just about sales trips; it now involves conferences where information is shared. Brouwer et al (2008) did a survey on air travel passengers at Amsterdam Schiphol airport and identified that out of 400 participants, 40% of them travelled for business, the rest travelled for pleasure or a combination of business and pleasure, however the study did not indicate any specific data on the combination percentage, which correlates with Swarebrooks & Horner (2007) identification that business tourists become leisure tourists when the working day is over. As a business traveller often travels at someone else's expense this segment of travel is a very high spending one. Denstadli, Hjorthol, & Lian, (2002) reported about Norwegian business travels, and indicated that in 2001, there were 2.2million persons between the ages 16-74 years old in a work situation in Norway. The travel survey of 2001 showed that 1 in 7 from the work pool above did undertake a business trip. On average they did three trips a month, 36 one ways or 18 return trips a year. It also showed that employees in public services had more business trips then private companies; however the frequency was higher amongst the private employees. Public service employees undertook business trips due to training or conferences whereas private company employees travelled more in connection with sales, purchasing and assistance. Denstadli et al (2002) also reported that air travel and business trips decreased with 5% from 1998 to 2001. They identified that people are more willing to use a car over a longer distance (over 100km), and therefore the market share of air travel and business trips is on 19% only. Denstadli (2003) furthermore undertook a study about the Norwegian business sector, business travels and video conferences. The study highlighted that eight

out of ten companies wanted to reduce their business travel expenditure by investing in video conferencing equipment, however the results showed that only one in ten companies managed to achieve this goal. The study identified that 63% of the employees experience business travels as a burden on both family life and the work situation. Denstadli (2003) stated that some companies had employees with over 100 travel days in a year and this was not uncommon. Mason (2002) claims that "within the European Union, business travel accounts for 48 per cent of all air travel passenger trips" (p.48), and that travel expenditure is the second largest expenditure in many companies, behind labour costs. The survey Mason (2002) undertook in the UK established that the participating companies spent £95 million on air travel in 1999.

Mason (2002) identified;

> The average number of short-haul trips in 1999 was over 9000, with long-haul (over 3 hours) accounting for 2.260 trips, and" 80% of the travel managers indicated that the amount spend on air travel was greater than only three years earlier (p.51).

"A traveller makes, on average, 17 short-haul trips and 6 long-haul trips a year" (Mason, 2002, p.52). Business travellers state that they do not have a saying in how they travel on business, time and cost mean that companies may insist on air travel, even with other modes of transport available (King, Dyball, Webster, Sharpe, Worley & DeWitt, 2009). Randles & Mander (2009) study on frequent flying excluded business travels, however they found that a clear distinction between leisure/business travelling was very difficult to make. Many of their interviewees indicated that they did a combination trip with both business and leisure. This was indicated in different ways; one way was that whilst on the business trip, the traveller would undertake leisure activities such as tours and cultural activities. It was also identified that some business trips to conferences was planned on the

basis of the leisure potential and not the attractiveness of the conference itself. It was also highlighted that relatives would often accompany the business traveller in order to take advantage of the leisure facilities. Lastly it was established that there was a likelihood of return visit for leisure once the destination had been visited for business. This would be an interesting angle to examine among the academics at NHS. Do they have the same behaviour as identified by Randles & Mander (2009)?

When it comes to studies on climate change and travellers, most researchers do not include business travels into their equations (Mayor & Tol, 2008; Smith & Rodger, 2008; Randles & Mander, 2009), it would therefore be very interesting to examine what academics travelling on a business trip feel about the topic.

2.12 Academics

This research will identify the behaviour of academics employed at NHS, we must therefore define a working definition as to what an academic is and highlight the reasons why we chose to interview the participants we did. We did not include any of the four PhD students that are currently a part of NHS, due to the reason of not wanting to disturb them in their finishing stages of their PhD, or the students not being at the school during the timeframe of the interview process. The definition we will use on an academic is; "*a member of a college or university*" (Collins English Dictionary, 2003).

Jons (2007) states:

> Academic mobility, comprising of mostly circular geographical movements for professional activities such as research stays, guest professorship and conference travel, does not only seem to play a key role in the internationalisation of higher education and maintaining a strong research capacity but also in the long-term development of transnational networks within and beyond the academy (p.97).

"There is a rapidly growing, world-wide increase in travel influencing faculty, students, and their respective educational institutions… University faculty and students is an important segment of the travel population" (Williams & McNeil, n.d, p.2). There is one study that we found which highlighted the Norwegian academics travel habits between 1981 and 2000. Smeby & Trondal (2003) focused on "faculty members' international contacts in terms of; 1) professional journeys related to conferences, guest lecturing, study and research visits, evaluation work and research collaboration, 2) international and national publishing and 3) national and international research collaboration" (p.5). The study showed that most academics participated in international conferences, although the also study showed that there has been an increase in all types of professional journey between 1981 and 2000. Both Norwegian and European authorities have acknowledged the importance of international collaborations and higher educations and "the 1990s also witnessed the emergence of international institutions that encourage, support and finance international staff mobility" (Smeby & Trondal, 2003, p.10). There has been a rapid development in electronic publishing facilities, however the academics still values the personal contact and it seems to have become more important.

2.2 Climate change.

Fahrenthold (2009) writes:

> To a psychologist, climate change looks as if it was designed to be ignored. It is a global problem, with no obvious villains and no one-step solution, whose effects seem as if they'll befall somebody else at some other time. In short, if someone set out to draw up a problem that people would not care about….. it would look exactly like climate change (quoted in Gössling, 2011,p.265).

Although climate change is becoming more on the agenda nowadays it is still a subject of great controversy. The first international conference on climate change and tourism being held in 2003 and it concluded that leisure travel was most likely to be affected by climate change issues (Aall & Høyer, 2005). The conference also determined that business travel would not be directly affected by climate change issues, although, air travel is a major part in getting to and from destinations, both for leisure and business purposes, therefore business travel will have an effect on climate change, and is of an interest to study. Climate change is defined as "*any change in climate over time, whether due to natural variability or as a result of human activity*" (Dickinson & Lumsdon, 2010, p.24). This correspond with the UN's definition: "Climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (United Nations, 2013). And this is the definition we will be working with, *a change in the climate that is either man-made or of natural causes***.** Anable, et al, (2006) states that "climate change is already beginning to affect decision-making in the tourism sector (investors, insurance companies, tourism enterprises & tourists), and it will be a pivotal issue affecting tourism development and management in the decades ahead" (p.113). "Human-induced climate change may pose a significant threat to humans and the wider environment" (Whitmarsh, 2008, p.1). Climate change is a widely studied area, and with many different angles. Moser (2010) looked at the need for a wider understanding about climate change and what could be done to enlighten the society. He identified the need for research on how important vulnerability and adaptation regards climate change is and countries such as the U.S should take it serious. Parry (2001) questions what the research priority regarding climate change should be and highlights the large gaps that exists in regards to providing scientific information and how the increase in this

information can help in a decision making process. Corner & Randall (2011) acknowledges "that confronting the challenge of anthropogenic climate change will require significant societal change" (p.1005). Adger, Arnell, & Tompkins**,** (2005) did a study on what effects the climate change has on physical and ecological systems and how humans can adapt to it. Gössling, Scott, Hall, Ceron & Dubois (2012) investigated how a tourist would respond to a changing climate and it seemed that the only concern tourists had with the climate change was that off an altering holiday climate. "Climate change is affecting the tourism industry through many different mechanisms, such as environmental changes or changes in travel patterns" (Buckley, 2010, p.1), however he states that "the only effective option to reduce greenhouse gas emissions from air travel is to increase the cost of travel through carbon taxes or emission trading systems" (p.1). Gössling (2002) identified how a change in the perception and understanding of the environment through travel was evident and explains further that due to travelling, humans have the opportunities to experience different environments. It was however recognised that the environmental consciousness may not necessarily increase. The traveller may experience new environments/locations and feel how the effect on climate change may affect the population at the destination, however may not feel more concerned about it. Füssel (2007) established;

> For limiting the adverse impacts of anthropogenic climate change are mitigation of climate change, which refers to confining global climate change by reducing the emissions of greenhouse gases or enhancing their sinks, and adaptation to climate change, which moderates the adverse effects of climate change through a wide range of actions that are targeted at the vulnerable population (p.162).

Nordhagen, Calverley, Foulds, Thom & Wang (2012) concluded that the "public interest in climate change research is greater than ever, and the media spotlight has broadened"

(p.17). Scott, Peeters & Gössling (2010) highlights how tourism would be ranked fifth on a global level, if it was a country, after United States, China, the European Union and Russia. Therefore this subject is important to investigate and educate about. Climate change can be understood under many names and therefore we will acknowledge; climate change, global warming; global climate change and environmental change during the interview process and coding will be accordingly.

2.2.1 Emissions

This section has been added in order to give the reader a bit of background information on the different emissions that are often mentioned when discussing air travel. It will not be discussed in relation to our findings.

"As most of the energy used in tourism is derived from fossil fuels, tourism is associated with considerable emissions of greenhouse gases" (Gössling, 2011, p.65). Worldwide, tourism is responsible for about 5% of energy-related CO^2 emissions (Strasdas, 2010). "In 2006, the global aviation fleet burned 188.20Tg (or metric tons) of fuel" (Wilkerson, et al, 2010). However there seems to be a bit of a discussion on what emissions are the worst for the environment. This section will look at the main two types that have been highlighted by most researchers/scientists (Mayor & Tol, 2008 and Smith & Rodger, 2008) as the most polluting ones. Wit & Dings (2002) established that the prime concerns with respect to the climate impact of aviation are emissions of CO^2 and contrail formation; there are also emissions of nitrogen oxides, soot mass and sulphate aerosols; nevertheless this section will only examine the carbon dioxide and contrail formation, but also look briefly into nitrogen oxides as an indirect cause.

Carbon dioxide (CO^2) is a colourless, odourless and non-poisonous gas formed by combustion of carbon and in the respiration of living organisms and is considered a

greenhouse gas (OECD, 2004). "The effect of CO^2 is well understood, as it contributes directly to the warming of the atmosphere depending on its atmospheric concentration" (Becken, 2002, p.115).

Contrail formation is a particle emission from the jet engines (Marquart, Ponater, Mager & Sausen, 2003), and very basic explained, contrails are composed of ice crystals and the level of water in the fuel indicates the visibility of the contrail (Coleman, 1996). "Contrails from engine exhaust of high-flying aircraft may influence the climatological and chemical state of the atmosphere" (Schumann 1994; & WMO, 1995, quoted in Busen & Schumann, 1995). This was a topic almost 20 years ago, and it is still being discussed today. Nevertheless, there have been some changes to how it actually pollutes. It was stated that contrails could led to climate change, however nowadays, as the temperature gets warmer, it has been established that contrails will decrease as this phenomenon will decrease as the climate changes (Marguart et al, 2003).

Another emission gas to consider is nitrogen oxides or NOx. NOx is a reactive gas that is being created when nitrogen and oxygen gasses in the air combusts. This normally happen in high temperatures such as in an engine. NOx reacts to form smog and acid rain (Wikipedia, 2012). NOx will influence the atmosphere indirectly by a complex interaction with other compounds; there has therefore been some discussion on how dangerous it is. No matter how dangerous the emissions are, when "the extent to which air travel affects the environment is important, as half the co2 emissions produced from one transatlantic flight equals the amount of CO^2 produced from all personal sources including transportation, lighting, heating, etc. from one person in one year (IPCC, 2001, quoted in Dodds, Leung & Smith, 2008, p. 136) it is time to take action.

2.3 Attitude, awareness and behaviour

This section will identify the working definitions that we will be using during our interview process. We will correspondingly examine the theory that has been identified related to the different concepts.

2.3.1 Attitude

In order to undertake research regarding travel behaviour and climate change awareness we need to establish a good working definition and by looking into the field of psychology we can do just that. In our case we need to study attitude, which is "an important part of the field of social psychology" (Carlson & Buskist, 1997, p.492), awareness and behaviour. Reber & Reber (2001) explained attitude as "Some internal affective orientation that would explain the action of a person" (p.63), this is also recognised by Kollmuss & Agyeman (2002) which uses the definition; *that attitudes is the enduring positive or negative feeling about a person, object, or issue*. The working definition we will be using is; *attitude represents a predisposition to think and act in a certain way towards an object, event or person, and attitude is created on the basis of experience, during learning and acquiring knowledge* (Reisinger & Turner, 2003). We need to identify the feelings about a topic and then identify how that feeling influence how we act towards the topic and what beliefs we have about it. For this research we need to establish how the academics at NHS' perceptions about climate change and air travel and if it is on the same line as their beliefs and if they act accordingly. However, as Bamberg & Moser (2007) states "attitude does not directly determine behaviour but only indirectly via behavioural intention" (p.16). "When forming their behavioural intention, people do not only take into account their attitudes towards this behaviour but also estimate their ability to perform this behaviour that is their perceived behavioural control over it" (p.16). Therefore we will examine behaviour next.

2.3.2 Behaviour

Reber & Reber (2001) states that behaviour is: "*A generic term covering acts, activities, responses, reactions, movements, processes, operations, etc.; in short, any measurable response of an organism*" (p.82). The theory has identified several types of behaviour that could be interesting to investigate in connection with climate change awareness and air travel behaviour. Underlying for all behaviour is; the theory of planned behaviour (TPB) (Azjen, 1971), which states that behaviour is a function of three categories of prominent beliefs. Behavioural beliefs, which are feelings about definite outcomes and consequences of certain behaviour. Second category is normative beliefs, which relates to social pressure to perform or not to perform the behaviour, and lastly the control beliefs, which is our skills, abilities, knowledge, resources and opportunities to perform the behaviour (Ballantyne & Packer, 2005). "Theory of reasoned action (TRA) indicates that the most important determinant of a person's behaviour is behavioural intent (Azjen, 1971), which reflects the willingness to perform a certain act and is determined by individual attitudes and subjective norms" (Cheng & Monroe, 2003; quoted in Budeanu, 2007, p.502). TRA was developed within TPB by including the concept of perceived behavioural control as determinant of behaviour intent, following the individual evaluation of the opportunities and resources available for performing" (Cheng & Monroe, 2003; quoted in Budeanu, 2007, p.502).

Steg & Vlek (2009) discusses environmental behaviour and define it as "all types of behaviour that changes the availability of materials or energy from the environment or alter the structure and dynamics of ecosystems or the biosphere" (p.309). "Environmental behaviour started from the assumption that individuals make reasoned choices and choose alternatives with highest benefits against lowest costs" (p.311). For tourists this could be the increase on low cost airlines, as it gives them the highest benefit in form of holiday for

a low cost. The consumer will do what is easiest, not necessary the environmentally right thing to do. This is on the same line as habitual behaviour. It may be guided by automated cognitive processes, rather than being preceded by elaborate reasoning, but "may involve misperceptions and selective attention; people tend to focus on information that confirms their choices, and neglect information that is not in line with their habitual behaviour…. habits are reconsidered only when the context changes significantly"(Steg & Vlek, 2009, p.312). People choose not to believe certain topics about climate change or air travel for instant because it does not fit with their desired behaviour. Therefore they are not willing to consider an alternative. Consumers/tourists who do consider the environment may hold a pro-environmental behaviour, which is defined as "behaviour that harms the environment as little as possible, or even benefits the environment" (Steg & Vlek, 2009, 309). Bamberg & Moser (2007) indicates that; "pro-environmental behaviour is probably best view as a mixture of self-interest and of concern for other people" (p.15). Intent-oriented behaviour tend to be led by altruistic or self-transcendent values in order to activate personal norms to undertake a pro-environmental action, i.e. it is believed that the environment can/will threaten the individuals' values, and therefore it is easier for the individual to act and reduce the threat (Whitmarsh, 2008). It has been identified that "environmental attitudes are shown to have lower importance compared with habitual lifestyles" (Garvill et al, 2003, quoted in Budeanu, 2007, p.503), and that people refuse to change their behaviour due to lack of information or they chose to ignore the facts.

This next section will discuss previous studies/research that has been conducted and on this basis establish the theory we will be using for our research.

Böhler, Grischkat, Haustein & Hunecke (2006) identified that Germans' who travelled long distances had a tendency for higher frequency on trips and travelled by air up to 60%

more than the other groups identified. The study that was undertaken examined and identified the Germans' into three different travel groups, and it was clear that the long-haul travel group had the greatest potential for environmental impact reduction. The group was the smallest, with 10.7% of the total population, but were responsible for 80% of the climate emissions. Reducing the number of flights would greatly help to reduce carbon emissions. The study also identified that "all the travel groups had strong environmental values" (p.666), however it showed that the values did not have any influence on the travel behaviour. Further in the study, it was identified that there was a lack of connection between the environmental impact and the holiday behaviour and it was suggested that it could have been a result of lack of information, but also a lack of "non-consideration of alternative options due to the high importance individuals attribute to holidays" (p.666). King et al, (2009) found that "there was some resentment about being asked not to fly for an annual holiday when it was perceived that "celebrities and the rich" do so all the time" (p.54). It seems that the participants of this study would not change their behaviour if others did not do so as well. Clearly they did not hold a pro-environmental behaviour. "The findings of the research suggest that behaviour changes that people are prepared to undertake are those that are practical and consistent with their attitudes and lifestyle and which therefore do not inconvenience them" (p.66), but more of a habitual behaviour. Burns & Bibbings (2009) identified that "if consumers are to be influenced in their travel and tourism choices then communication between governments, industry, the media and consumers will need to be designed, or even radicalised, to motivate socially beneficial behaviour. And this is where Cohen et al, (2011) comes in with their study which combined two previous studies (Higham & Cohen, (2011) and Cohen & Higham, (2010)) and tries to explain the behaviour as an addiction and identify ways to combat this addiction. This change should start with the young people, as Line et al, (2012) builds on

its previous research regards young people in the UK and climate change awareness and tries to find ways in which the behaviour can be changed.

2.3.3 Awareness

Reber & Reber (2001) describes awareness as: "*An internal, subjective state of being cognizant or conscious of something*" (p.74). This can be in form of "Both normative knowledge (values) and behavioural knowledge (factual knowledge) affect intentions and subsequent behaviour, either through attitudes and /or through subjective norms" (Kaiser, Ranney, Hartig & Bowler, 1999, p.60). *"Awareness relates to knowledge and perception but refers specifically to the individual consciousness about specific facts"* (Becken, 2007, p.357). We will be using Becken's (2007) definition as it seems to be the one which explains what we are trying to explain in relation to the climate conscious model.

Dodds et al, (2008) investigated the level of awareness of climate change by travellers and travel agency staff in downtown Toronto. They wanted to establish if they were willing to use carbon offsetting when flying. Although this study investigated awareness and carbon offsetting schemes, it did report of a lack of awareness on the impacts that tourism has on the environment, and that the tourism industry needs to "become more aware of the environmental impacts it creates" (p. 145).

Gössling (2011) showed different surveys on countries and how the levels of awareness are amongst the population in regards to air travel and climate change. In Britain, on average, 65% of the population from four different studies held the awareness that air travel was indeed harmful to the environment. In Germany, the awareness was at a high 83%, and in Sweden almost 90% believed that transportation, both aviation and surface, are the main contributor to climate change. A mare 45% of French business travellers said that climate change would influence their travel decision making.

King et al, (2009) report identified that

> Awareness of climate change as an issue was universal and acceptance that the climate is changing was almost universal. Acceptance that human behaviour is a contributor to climate change, whilst not universal, was high. However, "there was a lower level of acceptance amongst participants that their personal contribution is significant (p.21).

This indicates that although consumers of air travel have the awareness about air travel and climate change, they seem to not be able to understand how their personal behaviour has an impact. It is not only consumers' of tourism whom needs to assess their awareness regards environmental concerns, which is supported by Nawijn & Peeters (2010). Gössling & Peeters (2007) investigated how the tourism industry's perception on tourism, air travels and the environment. This is what has been identified as the Gap between awareness/knowledge and action/behaviour. The following section will identify in detail the research conducted on this topic and establish our empirical position in regards to the academic travel behaviour.

2.4 The identified *Gap*

The research field of climate change awareness and air travel behaviour has not been greatly studied, however there seems to be several studies which highlight the Gap between what they know/ are aware off and the action and behaviour they hold.

Higham & Cohen (2011) did a study on Norwegians and their air travel carbon consciousness. It showed that Norwegians are aware of the effect that air travel has on climate change, nonetheless Norwegians were not willing to change their travel behaviour, however they did acknowledge that air travel has a negative effect on climate change, and were willing to sacrifice other activities/luxuries in order to continue their flying activity.

During their research they developed a carbon conscious model "The Continuum of air travel carbon consciousness".

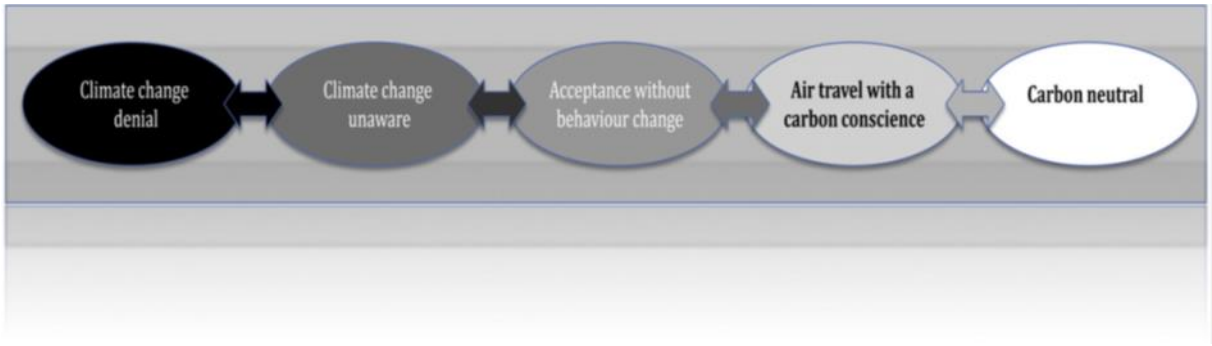

Figure 2.1. The Continuum of air travel carbon consciousness (Adapted from Higham & Cohen, 2011).

The model assesses the level of air travel carbon consciousness from a denial stage, through an acceptance stage and till the stage of full carbon neutrality. On the '**climate change denial'** stage, the travellers refuse to acknowledge climate change and states it is a propaganda that is not to be taken seriously. The next stage up is '**climate change unaware'**, which would indicate that the traveller/tourist recognise climate change as an issue, however there is no awareness of the link between behaviour and effect. At the '**Acceptance without behaviour change'** level, it is accepted that there are issues and something should be done, but see no need for them personally to change their behaviour. Next level is '**air travel with a carbon conscience**' which indicates that the person travelling is aware of the effect of air travel and in order to conduct air travel may reduce other activities to overall reduce the carbon impact. Lastly is '**carbon neutral**' where every activity is carefully planned and there is no carbon emission to speak of.

The same study scenario as above was conducted by Cohen & Higham (2010) amongst British people. This study showed that the British did have a limited awareness of the effect air travel has on the environment and they were not willing to change any behaviour neither prior to flying or reducing the amount of trips. This can be confirmed by Hares et al, (2010). Whose study wanted to investigate how British holidaymakers see their impact

on the environment when undertaking air travel as part of a holiday. It showed that climate change is not an issue being considered when holidaymakers plan and book their holiday. Similar results were found in Susilo et al's (2012) report. It is based on the individual and their environmental attitude and if their travel patterns correspond with the attitude. The report looked at how to create sustainable neighbourhoods' in the UK, and focused mainly on walking, cycling and car travel. The result showed that "in terms of attitude towards the environment and environmental behaviours, almost all respondents were aware of environmental issues, but their views did not necessarily 'match' their travel behaviour" (Susilo et al, 2012, p.199). In Line et al, (2010) study it was the young people (11-18 years) that did not see the link between transport and climate change, although they seems to have an awareness of climate change. The same result was also found by Gössling et al, (2006). They did a study of tourists visiting Zanzibar and wanted to identify how important climate is to tourists visiting a tropical destination. It was recognized that tourists seek hot and dry weather when on holiday and a risk of increased rainfall would make them consider changing their holiday destination. The survey asked if there were global environmental problems associated with tourism, and out of 252 respondents, 66% answered yes, however only 26% of them again could give an example and air travel was mentioned by 17%.

When identifying the attitude to Hong Kong residents towards climate change, it was highlighted by McKercher, Prideaux, Cheung & Law (2010) a significant gap between awareness and action. The study's findings indicated that few residents have changed or appear to be willing to change their behaviour voluntarily, and especially the people who travelled the most were least likely to change their air travel behaviour. The study identified that "the public has strong awareness of and reasonable knowledge about both local and global environmental issues but is generally unwilling to make voluntary

changes" (p.313). Antimova et al, **(**2012) investigates how best to decrease the attitude/awareness gap in relation to sustainable tourism. It looks at the theoretical approach on three different levels, individual, interpersonal and community. The findings suggest that community level theories would be the best solution, however the individual level offer the best explanation. This could indicate that it's the person must be willing to change, and adopt a pro-environmental behaviour where they consider the greater good for themselves, others and the environment. However it needs to be established at a community level were different players within the industry and governments take action. The current situation amongst tourism experts was clearly showed by Becken (2004). She wanted to explore how tourists and tourism experts, including some academics, see climate change and the findings showed that although tourism experts acknowledge the issue that is climate change, they seem more concerned with the threat that the changing climate may have for the industry and not how the industry may be the cause for it. Even though their study is almost 20 years old, Bostrom, Granger Morgan, Fischhoff & Read's (1994) study still seems to be holding. They identified that respondents did see climate change as a threat and did want to see some action, however they held to many misrepresentations about the subject. And in Guernsey, Stabler & Goodall (1997) carried out a survey on the hospitality industry and the results showed such a lack of environmental awareness within the industry. However even with the lack of awareness, the study did show that "over three-quarters of respondents in each of the three hospitality sectors recognised the environmental problems which threaten the future of tourism on Guernsey" (p.27). Studies that were conducted almost 20years ago identified more or less the same scenarios as more recent studies. The fact that climate change is being acknowledged, but there is a lack of connection between awareness and actions. The only change seems to be that today people may have more knowledge about the scientific facts. It appears that although the public

and tourism industry players are becoming more aware of the impact climate change has, there is little or no willingness to adapt the travel behaviour. Weaver (2011) highlights the lack of industry commitment and states "it is entirely unsurprising that the industry will engage with climate change to the extent that this yields gains in public opinion and profitability and reduce regulatory pressure from government" (p.12).

Whitmarsh (2008) refers to a survey conducted by Bord et al (2000) and were it was identified that the

> Perceived societal risk of global warming moderates the relationship between knowledge and behavioural intentions to address global warming. Consequently, the lack of perceived threat from climate change may account for the lack of behavioural response to the issue amongst the UK public (p.8).

Brouwer et al's (2008) study about air passengers at Schiphol airport in Amsterdam indicated that the level of awareness on climate change is low for Asian air travel passengers, and UK and Dutch travellers had a much higher awareness level of the relationship between flying and climate change. The British also held the highest concern level, compared to other nationalities when it came to level of concern regarding climate change.

Brouwer et al, (2008) states:

> We find that awareness and demand for climate change mitigation vary across aviation passengers depending on their place of origin. Europeans are most aware and willing to pay for carbon offsets when controlling for the distances flown and associated greenhouse gas emission, whereas North Americans and Asians are less informed and less willing to act (p.310).

Here we can clearly see how British state they have a high awareness of the climate change threat, however as they do not see it as an immediate threat they are unwilling to change their travel behaviour.

Kaiser et al (1999) explains:

> Some surveys show that people's attitude reveal quite a bit of environmental concern, suggesting that the general environmentalist attitude is becoming more and more prevalent. Unfortunately, the relation between environmental attitude and ecological behaviour appears to be, at best, moderate across different studies. A person's ecological behaviour often does not match his or her attitudinal intentions (p.59).

Becken (2007) did an initial survey of 63 international tourists leaving New Zealand to gain an understanding of the knowledge level on air travel impacts. The information gathered where then used to create a base to undertake focus groups. The focus groups showed that when discussing climate change the knowledge held by the participants of the focus groups were very generic, and "links between own behaviour (i.e. air travel) and climate change impact were rarely made" (p.356). The same result was reported in Barr et al, (2011). Their study highlighted that residents in a 'green' area (due to the environmental friendly activities) had a higher level of carbon emission, due to "a tendency to fly further and more frequently for holidays" (p.714). The research conducted identified that individuals that were least committed to the environment at home, did have a very brief discussion about flying and climate change. There was unsurprisingly a lack of connection between flying and climate change. Nevertheless, the individuals more environmentally aware at home did have a better understanding of flying and climate change; however they still wished to continue flying and this created a conflict. And as King et al, (2009) identified that "there is a gap between accepting human behaviour as a contributor and accepting personal action as a solution" (p.22). And it is not just studies

and research about air travel behaviour and climate change awareness that identify a *GAP*. Scott & Becken (2010) identified that although "climate change and tourism continue to mature and attract more and more attention from scholars and the tourism community, a number of key knowledge gaps and limitations remain" (p.286). The paper refers to a study by Dawson et al,(n.d) on how tourists on a 'viewing polar bear' trip did not understand how their travel behaviour had an impact on the polar bears environment; however they all acknowledged the potential impacts climate change could have on the polar bear population. McKercher & Prideaux (2011) undertook a survey as part of a global survey on "environmental attitudes of students in senior year undergraduate and first-year postgraduate tourism and hospitality subjects" (p.329). This study wanted to identify how aware the future leaders of tourism and hospitality industry were on the impact of climate change. McKercher & Prideaux (2011) selected tourism students as they are more likely to have a higher awareness on tourism issues then other students. This was also identified by Ewert & Baker (2001) quoted in McKercher & Prideaux, 2011) were it was found that tourism related students had stronger pro-environmental views than business management students (p.329). The study McKercher & Prideaux (2011) undertook showed that "neither tourism nor air transport was identified as a significant global environmental issue by students….. in fact 'litter' was identified more frequently as a major global issue than air travel" (p.334). "The most striking feature, though, is the lack of specific knowledge about causes". 36.6% of the students were able to identify a specific direct cause to climate change, whereas 47.2% could identify an indirect or non-specific cause to climate change. The study concluded that most of tourism students did not identify tourism and air travel as an important global issue, and it was due to an awareness/action gap and that tourism seems to be a low priority when it comes to environmental issues.

Kollmuss & Agyeman (2002) analyse the factors that have been found to have some influence on pro-environmental behaviour, both positive and negative. They also analyse the different models that have been used to explain the gap. These models were; direct versus indirect experience; normative influences, temporal discrepancy and attitude-behaviour measurements. Kollmuss & Agyeman (2002) explains direct versus indirect experience how the influence may be stronger about a topic if you have any direct experience with it, and on the contrary the influence may be weaker if you only indirectly experience. Normative influence is described as everything that shapes our attitude, such as social norms, influence from family and cultural traditions. A strong dominant culture is most likely to increase the gap between attitude and action. "Temporal discrepancy refers to the fact that people's attitudes change over time" (Kollmuss & Agyeman, 2002, p.242). Lastly, the measurement used to measure attitude is broader than the one to measure action. These models could be very useful to us, should we find any attitude-behaviour gap in our research. "Environmental attitudes have been found to have a varying, usually very small impact on pro-environmental values" (p.252). This is unexpected because we tend to assume that people live according to their behaviour.

As this section highlights, there is an identified gap between awareness that people have when it comes to climate change and the air travel behaviour they conduct. We feel there is a lack of empirical data when it comes to how much academics travel and would be interested in finding out how their attitude and level of awareness compare to Higham & Cohen' (2011).

3 Method

3.1 Introduction

This section will explain how we intend to do the research in order to answer our research question. Each section will explain the process to achieve our goal, as well as describe what we actually did in order to achieve the outcome. It will identify the research design and establish the appropriate method regarding the research. We will identify both the strengths and weaknesses with the chosen method and explain why we do think it is the best for our research. Further we will explain our population, sample size and sample technique. Following this there will be a brief explanation on how we will gather the data and how it will be coded and analysed. A section on ethics will also be included with issues concerning confidentiality and anonymity, how to achieve consent regarding tape recordings and how the data will be stored.

3.2 Research method

This section will briefly explain the differences between quantitative and qualitative research method and establish the reasons for our chosen method. "In all research, we strive to collect empirical data systematically and to examine data patterns so we can better understand and explain social life" (Neuman, 2011, p.165). The following paragraph will briefly explain about quantitative research methods.

3.2.1 Quantitative method

"Purpose of quantitative research is to quantify a research problem, to measure and count issues and then to generalize these findings to a broader population" (Hennink, Hutter, & Bailey, 2011, p.16). In addition Marshall (1996) sums it up well; "the aim of all quantitative sampling approaches is to draw a representative sample from the population,

so that the result of studying the sample can then be generalized back to the population" (p.522). Punch (2004) states "information about the world does not occur naturally in the form of numbers" (p.58). He further explains that it is the researcher which turn the data in to numbers because this could make the research easier to understand. Quantitative study relies more on positivist principles, where the emphasis is to measure variables and test hypotheses. This is dictated by the hard data that quantitative research depends on.

3.2.2 Qualitative method

"Qualitative research tend to be concerned with words rather than numbers", and has "an inductive view of the relationship between theory and research" (Bryman & Bell, 2003, p.280). The data that is collected here is the soft data in form of words, pictures, symbols and so on (Neuman, 2011).

Mays & Pope (1995) proclaims

> In many forms of qualitative research the raw data are collected in a relatively unstructured form such as tape recordings or transcripts of conversations. The main ways of which qualitative researchers ensure the retest reliability of their analysis is in maintaining meticulous records of interviews and observations and by documenting the process of analysis in detail (p.110).

"We can use field research to identify aspects of the world that are inaccessible using other methods (e.g., survey, experiment)" (Neuman, 2011, p. 421).

Hennink, et al (2011) describe:

> Qualitative research is an approach that allows you to examine people's experiences in detail, by using a specific set of research methods …main distinctive features of qualitative research are that the approach allows you to identify issues from the perspective of your study participants, and understand the meanings and interpretations that they give to behaviour, events or objects (p. 9).

Marshall (1996) states that "qualitative studies aim to provide illumination and understanding of complex psychosocial issues and are most useful for answering humanistic "why" and "how" question" (p.522). Considering our research question the appropriate approach to conduct our research with a qualitative method and have in-depth interviews with the participants of the research. Hennink et al (2011) states that to "… study people in their natural settings, to identify how their experiences and behaviour are shaped by context of their lives, such as the social, economic, cultural or physical context in which they live" (p.9).

Hennink et al (2011) enlist when to conduct qualitative research.

- When we want to understand behaviour, beliefs, opinions and emotions from the perspectives of study participants themselves (this is called Verstehen).
- Understand and explain people's views and behaviour.
- Understand processes, such as how people make decisions, or negotiate a job or manage a business.
- Uncover the meaning that people give to their experiences.
- Understand the social interactions among people and the norms and values shared by them.
- Give voice to the issues of a certain study population

(p.10)

To explain the interpretive approach further the clarification between *verstehen* and understanding should be explained more. Qualitative research mainly focuses on understanding behaviour, perceptions or experiences. However, Hennink et al (2011) states that understanding can be viewed from two different perspectives. First, understanding can be explained as the perspective when the researcher is using their own frame of references on the issues. Second, *verstehen* is identifying the populations' perspectives on the research issues. More specifically *verstehen* refers to "understanding the life of the people whom you study from their own perspective, in their own context and describing this using their own words and concepts" (Hennink et al, 2011, p. 17). In addition, Hennink et al

(2011) states "*Verstehen* is important in qualitative research as you want to know the subjective meaning that people attach to their views and experiences" (p. 18). By conducting semi structured in-depth interviews, we can achieve the subjective of the participants that will give the research the ability to develop the *verstehen* about the subject and get the `in sider` perspective. Another concept that is closely linked to *verstehen* is the emic perspective and can explain how important it is to have knowledge about not only the participants but also the society around the participant. Hennink et al (2011) explains "the emic perspective provides information on the insider's point of view, the insider's perceptions, beliefs, and meaning system" (p.18). Knowledge about systems (university rules and systems), culture (teacher, university, home) and general believes surrounding the participants of our research would therefore gain us a better view on how the system works related to traveling connected with the University.

Furthermore the culture and systems the interviewees hold could be affected and lead by the interviewer. Hennink et al (2011) states "the interpretive approach acknowledges subjectivity" and further explains "the perspectives of study participants reflect their subjective views of their social world, and that the researchers also bring their subjective influences" (p. 19). Reflexivity is explained in Hennink et al (2011) as "a process that involves conscious self-reflection on the part of researchers to make explicit their potential influence on the research process" (p.19). "Reflexivity is needed in order to legitimize, to validate qualitative researchers" (Pillow, 2003: 175, quoted in Hennink et al, 2011, p.20). Therefore reflexivity needs to be used throughout the research process and in that way reflect on potential influences the researcher could make on the data collection, data interpretations and research design (Hennink et al, 2011).

3.3 Research design

A descriptive design provides a detailed and highly accurate picture of the research situation, where the main aim is to locate new data which contradict past studies (Neuman, 2011). In an exploratory study the subject is very new and no one has explored the area yet (Neuman, 2011, p.38). We feel that we are becoming familiar with the basic facts, settings and concerns regarding the academics' air travel behaviour and climate change awareness and as our empirical searches indicated very little research has been conducted on this particular group of people.

The research design would follow our research question. As our question asks: *'What is the relationship between academics' business travel behaviour and climate change awareness?'* This question indicates that we want to explore a phenomenon and as the empirical searches did not highlight much research conducted within the academics travel patterns; therefore we feel it is an exploratory design. However there have been studies on other groups on these topics and we will therefore analyse the findings with inductive theory and more specific theoretical extension in mind. This will be discussed later on in chapter four.

3.4 Ontology, epistemology and triangulation

This section will explain about the different research approaches there are. We will establish what paradigms there are and how the ontology or epistemology approach fits within the different paradigms. This would give us a clear indication into what approach we are using and why. We will also explain briefly about triangulation and how we can achieve the best results by using a triangulate approach in our research.

In philosophy there are two main areas of which most research has been conducted within; ontology and epistemology. This section will try to briefly discuss the two approaches and their sub-sections, and we will determine which approach we will employ.

Ontology "concerns the issue of what exists" (Neuman, 2011, p.92). It makes the assumption about the topics we want to study and its place in the world, and answers to the question 'what' (Neuman, 2011; Bryman & Bell, 2003). Epistemology is often considered as the theory of knowledge, we know something exists and to answer any questions we need to ask both 'how' and 'what' (Bryman & Bell, 2003; Neuman, 2011).

In order to understand the different approaches we will discuss Guba's (1990) (quoted in Pernecky & Jamal, 2010) different research paradigms and this will help us to recognise where we are situated with respect to the objects and the philosophical (ontological or epistemological) suppositions which will influence our methodological approaches and assumptions of our research (Pernecky & Jamal, 2010). Guba (1990) indicates that there are four different paradigms; positivist; post-positivist; critical thinking and constructivist.

Positivist is often associated with realism and Guba (1990) states that the approach within ontology for positivist is realist and post-positivist is critical realist. A positivist approach "assume that natural and social sciences should and can apply the same principles to collecting and analysing data and that there is a world out there (an external reality) separate from our descriptions of it" (Flick, 2007, p.78). The epistemological approach under the positivist paradigm is a dualist/objectivist or for post-positivist – modified objectivist. This indicates that an ontological approach is more concerned with the reality that is 'out there' and is driven by unchangeable natural laws and mechanism. The epistemological approach is also concerned with the reality; however this approach wants

the researcher to develop a distant, non-interactive posture in order to not influence the outcome (Pernecky & Jamal, 2010).

Critical thinking/theory denotes a set of alternative paradigms, such as neo-Marxism, feminism and materialism. The common breakaway off these approaches is that they are all value-determined in the nature of inquiry (Guba & Lincoln, 1994). The ontological approach here is called historical realism, where the reality can be changed and shaped over time by social, political, cultural, ethnic and gender factors (Guba & Lincoln, 1994). The epistemological approach is transactional and subjectivist; where the researcher and the object are interactively linked, and the values of the researcher influencing the research, the findings are therefore value mediated (Guba & Lincoln, 1994).

Constructivist "denotes an alternative paradigm whose breakaway assumption is the move from ontological realism to ontological relativism" (Guba & Lincoln, 1994, p.109). In ontology, constructivism is seen as a relativist, where "realities are apprehendable in the form of multiple, intangible mental constructions, socially and experientially based local and specific in nature" (Guba & Lincoln, 1994, p.110). The epistemological approach is again transactional and subjectivist where again the researcher and the object are assumed to be interactively linked, but here the findings are created as the research proceeds (Guba & Lincoln, 1994).

We feel that our research is off a constructivist epistemological approach. Reasons for this are how we have created the findings as we proceeded with the process of interviewing and coding. It is an epistemological approach as we wanted to investigate the knowledge that the participants had regarding climate change and air travel, and by using the question word 'what' in our research statement as well as using 'why' in the more specific objectives we feel our approach is an epistemological one.

3.4.1 Triangulation

Triangulation is "the idea that looking at something from multiple points of view improves accuracy" (Neuman, 2011, p. 164). Flick (2007) explains about four types of triangulation; data, investigator, theory and methodological. Data triangulation refers to the different data sources, or what Neuman (2011) describes as method triangulation. It uses different types of tools in order to collect data. It could combine a content analysis with experiments and observations. This way the researcher would collect data and get a broader overall picture. When different researchers/observers independently observe or collect data in a set situation to detect or minimise research bias is called investigator triangulation (Neuman, 2011; Flick, 2007). The third type is theory, which tries to compare how different theoretical approaches evaluate the same scenario and lastly measure or methodology triangulation. This type mixes qualitative and quantitative research approaches and data. As the approaches have complementary strengths. "A study that combine both tends to be richer and more comprehensive" (Neuman, 2011, p.165).

We think that by basing our questions for the interview guide on theory from well-established authors within behaviour and/or awareness and climate change we have achieved theory triangulation. Due to the population size, a quantitative approached was ruled out, we did not see it fit to include a questionnaire for 13 participants, however by asking the general questions about the participants we manage to catch the quantitative part of our research in a proper way. Due to fact that we were always two interviewers and only one interviewee, and only one would be the main interviewer, the other would automatically take an observer role, although we did not write down any observation in the transcripts, we did get the overall feel at every interview and by including this we can also claim to have observer/researcher triangulation.

3.5 Reliability and validity

"Most quantitative researchers recognise and document the worth of a project by assessing the reliability and validity of the work (Payton, 1979, quoted in Krefting, 1991, p.214). This same attention to the merit of a research project, however, is much less common in qualitative research" (Krefting, 1991, p.214).

This section will investigate how important reliability and validity is for a study, by examining how they play a different role depending on the chosen research method. As we will conduct a qualitative study; we will highlight the main issues that are important for this approach. How we feel we achieved reliability and validity within our own research will be discussed later in this chapter.

3.5.1 Reliability

For any researcher reliability is very important, it indicates if the research can be replicated, or generalised (Neuman, 2011). However as the quote above indicates there has been a lack of importance amongst qualitative researchers. Due to this Agar (1986) suggested that "terms like reliability and validity are relative to the quantitative views and do not fit the details of qualitative research" (quoted in Krefting, 1991, p. 214). Guba (1981) developed a new model for establishing reliability and validity within a qualitative study and called it trustworthiness. He identified four criteria's of trustworthiness which could replace the key aspects of validity, both external and internal, reliability and objectivity in a qualitative research study. Table 3.1 below demonstrations the quantitative approach and how Guba described the action and applied it to the qualitative approached.

Table 3.1, Quantitative vs. qualitative wording. (Adapted from Kefting, 1991, p.217).

Quantitative	Guba's criterion	Qualitative
Internal validity	Truth value	Credibility
External validity	Applicability	Transferability
Reliability	Consistency	Dependability
Objectivity	Neutrality	Confirmability

Reliability in quantitative research refers to the consistency of a measure of a construct (Bryman & Bell, 2003). Flick (2007) states that there are different ways a researcher can go in order to increase the reliability of interpretations and data. He goes further to explain how interview data can be reliable by increased interview training and by checking the interview guide and questions in a pre-test or after the first interview is conducted.

"Reliability receives its importance as a criterion for assessing qualitative research only against the background of a specific theory of the issue under study and about the use of methods" (Flick, 2007, p.369).

Kirk & Miller (1990) indicates how objectivity is an ambiguous concept. It refers to the fact that anything in the universe, seen from a natural science point, can be explained in terms of causality. In social science, objectivity refers to taking an intellectual risk, of being wrong. In a quantitative study the researcher is thriving for objectivity which indicates that the researcher should try to minimise or eliminate the subjective human factors (Neuman, 2011). The objective procedure in a quantitative study is an issue of integrity. It relies on an explicit and objective use of technology. It relies on making statements in a neutral term, with the use of well-documented standard techniques, making reliable and objective numerical measures (Neuman, 2011). When we discuss objectivity

in a qualitative study, there are four other forms of validation which in some way parallel the objectivity procedure found in quantitative research (Neuman, 2011). The first form indicates how carefully evaluated the evidence is and if they are checked for consistency. The second form comes from the written documents, references to sources, videos, quotes and commentaries. The share volume of this documentation creates a great diversity and helps in validate the authenticity. "The third form of validation comes from other observers" (Neuman, 2011, p.170). By documenting well, others can check and verify the sources. Lastly, we can create truthfulness by carefully publish the results, interlocking details and cross-reference the material. This process is what Guba (1981) (quoted in Krefting, 1991) called confirmability. Basically it "refers to the degree of which the findings are a function solely of the informants and conditions of the research and not of other biases, motivations, and perspectives" (Guba, 1981, quoted in Kefting, 1991, p.216). The neutrality focus has moved from the investigator to the data, and in order to achieve neutrality, truth value and applicability needs to have been established.

3.5.2 Validity

"Validity suggests truthfulness. It refers to how well an idea 'fits' with actual reality" (Neuman, 2011, p.208). In a quantitate study validity is concerned with measurements. Within this measurement validity there are, face, content, criterion and construct validity (Neuman, 2011). Face validity indicates if the measure makes sense, judged by others, especially the scientific community. Content validity indicates if it measures all aspects of a construct. Criterion validity is whether the measure is accurate compared to constructs by other researchers. There are two types of criterion validity; concurrent, where the construct is judged by an already valid pre-existing indicator, and predictive validity, which indicates future events which are logically related to the construct. Lastly there is construct validity, which measures multiple indicators. This validity is also divided into two types;

convergent validity and discriminant validity (Neuman, 2011). “Convergent validity applies when multiple indicators converge or are associated with one another” (Neuman, 2011, p.213). Discriminant validity indicates that the constructs are “negatively associated with opposing constructs” (Neuman, 2011, p.214). In quantitative research there is also internal and external validity.

External validity is the effectiveness of generalising experimental findings, and if a study lacks external validity the findings may only be valid for a specific experiments and will not be generalised (Neuman, 2011). “Internal validity occurs when the independent variable, and nothing else, influences the dependent variable” (Neuman, 2011, p.292).

In qualitative studies it is more important to achieve authenticity. It is more concerned with “offering a fair, honest and balanced account of social life from the viewpoint of the people who live it every day” (Neuman, 2011, p.214). The main aim is to describe how the participants in the study see and understand events. Guba (1981) in Kefting (1991) uses credibility for the internal validity of a qualitative study, by evaluating the truth value. Truth value indicates whether the “researcher has established confidence in the truth of the findings for the subjects or informants and the context in which the study was undertaken” (p.215). It is subject-oriented and indicates how “confident the researcher is with the truth of the findings, based on the research design, informants and context” (p.215). He also states that a “qualitative study is credible when it presents such accurate descriptions or interpretation of human experience that people who also share that experience would immediately recognise the description” (p.216).

External validity refers to whether we can generalise the results which were found in a specific setting with a certain group of participants (Neuman, 2011). The best way to assess applicability is to apply transferability, and the “researcher meets this criterion when

the findings fit into contexts outside the study situation that are determined by the degree of similarity or goodness of fit between the two contexts" (Kefting, 1991, p.216). Guba (1981) used the concept of applicability, whether the findings can be applied to other contexts or settings or groups. The qualitative approach indicates that generalisation is an illusion as every research situation is made up of a particular researcher in a particular interaction with particular informants. Therefore applicability is not seen as relevant as it is purposed to describe a particular phenomenon or experience, not to generalise to others.

3.5.3 How did we achieve validity and reliability?

In this section we will try to explain how we managed to achieved validity and reliability within our research, or trustworthiness as explained earlier based on Guba (1981) (quoted in Kefting, 1991).

The interview guide was carefully made with strong relation to theory about the subject and other researchers' articles and their questioners. Although we lack basic interviewing experience it was felt that after each interview we became a bit more comfortable and confident in ourselves and the questions. Based on this we can say we achieved dependability, however due to the population and their work situation it cannot be guaranteed the same results. The dependability can be influenced by participants wanting to retire, their family situation may change or workload may decrease or increase.

As mentioned, credibility could be achieved by insuring that we would produce the same theme in the answers from the participants at NHS with this sample as with a different sample of academics from a different Tourism University. We wanted to take the risk with recording as no one else had made a comment regarding this. We explained the reasons for recording and the benefits outweighed the limitations. One participant stated that if the interview would be recorded the answers and the willingness to be honest would decline or

change. In addition a second participant who understood the researchers' angle stated "*from this point on I have to be more strategically in the answers*". However, we feel that the most participants answered the questions honestly and truthfully.

Furthermore to ensure transferability the questions used in the interview guide were of a general sort and therefore could be asked not only to the participants in this specific interview but also used in interviews with other faculties or at other Universities. Since the questions were asked in a very open and freely manner, we feel that anyone could answer these questions because they can direct their answers in any way they want.

We conducted interviews with participants until saturation occurred and we could see that no new information would be brought forward. After transcribing the interviews, they were made available for whoever is interested to read or analyse them further and in addition if they want to make sure the documentation and coding has been done correctly. We researched articles to find appropriate questions for our interview guide and developed questions which had no leading questions. Therefore the aim of the interviews was decided by the interviewee, but the interview guide had minor questions around the research area which the interviewer added to the conversation to secure that the topic was in the conversation.

3.6 Sampling

Hennink et al (2011) states that "the process of participant recruitment involves two stages: the first is to define an appropriate study population; and second is to identify strategies for recruiting participants from the study population" (p.84). Most social research, both qualitative and quantitative, contains recruiting a sample of participants from the study population but, the approach to selecting participants is very different. Hennink et al (2011) says that "quantitative studies typically have a large number of participants who

have been randomly selected from a broad study population" (p. 84). Therefore the need to generalize the result of the research is to manage to make the result become a correct result for the whole population. Marshall (1996) uses Fisher (1993) to describe and explain why a small sample is positive: "qualitative researchers often fail to understand the usefulness of studying sample. This is related to the misapprehension that generalizability is the ultimate goal of all good research" (p. 523).

Marshall (1996) adds;

> An appropriate sample size for a qualitative study is one that adequately answers the research question… simple questions or very detailed studies, this might be in single figures; for complex questions large samples and a variety of sampling techniques might be necessary (p. 523).

However, in qualitative research the goal for recruiting participants has no need to make sure the findings can be generalize to a broader population. The purpose of qualitative research is to gain a detailed understanding of a certain phenomenon, to identify socially constructed meaning of the phenomenon and the context in which a phenomenon occurs (p. 84). Since the amount of participants are small the issues in the research can be explored in depth, therefore the recruitment are important in the sense that the specific characteristics which is need to capture and inform best about the research topic best have to be correct. Hennink et al (2011) says "participants in qualitative research are chosen because they have particular characteristics or experiences that can contribute to a greater understanding of the phenomenon studied" (p. 84). Therefore to select the particular study populations and capture the right participants' qualitative research uses a non-random method of participant recruitment, known as purposive recruitment. Purposive recruitment is both deliberated and flexible and Hennink et al (2011) explains this by selecting `on

purpose` people who are `information-rich` and can give in-depth information to the study the reason for the meaning of deliberated.

In Boulton & Fitzpatrick (1997) explain;

> Studies are generally based on small samples so that issues can be investigated `in depth`. This means that special efforts have to be made to ensure that the full diversity of individuals or cases is included, generally through `purposive sampling (p.84).

Hennink et al (2011) describes how "researchers can refine the types of participants selected during data collection, rather than following a ridged recruitment procedure from the outset" (p. 85). Hennink et al (2011) explains that the study population should be clearly defined prior to participants' recruitment so that it's clear who can be participants in the study. One might start broadly with identifying the population, but is should be clearly explained if the population will be more refined.

In this research the chosen population was the academics at the University of Stavanger which consists of 1100 employees divided between 16 faculties. After more consideration on how to deepen the research question we wanted to research on a more defined population. This population was the academics at the Norwegian Hotel School which is a part of the Social Science faculty at the University of Stavanger. Our population will be the academics at NHS and consists of 19 employees. However as there are at least two on extended leave (one maternity and one sabbatical) and as it would not be ethical to interview our advisor, we are down to 16 potential participants. We aim to have a sample of the full population, however due to the nature of the research topic being travelling we recognise that participants may be unavailable at the time of the interview process. We would be happy with a sample size of eight, which is half the population. Our research will be using a convenience sampling technique in order to recruit participants. Although

convenience sampling is not a representative sample of the target population, as the sample units are only selected as they are easily accessible and it is convenient (Statistics Canada, 2009), we think it will work for our research as we want to identify how the academics at NHS feel and understand about the topic of climate change and business air travel behaviour. We feel that due to the fact that it is the academics that are our study group we have to use this technique, as it will represent the sample unit we want. However we do acknowledge that our approach is of a convenience nature, we do have to employ a volunteer sampling. Without the willingness of the academics at NHS, we do not have a study population and will not be able to conduct the planned research.

The justification for the specific group of participants for this study was because given the amount of travel academics at the Norwegian Hotel School does per year; they can be a specific group within the business travel sector. By investigating travel forms from NHS, we can establish that during the past 12 months, the academics have been to destinations within Norway (Oslo, Bergen, Ålesund and Trondheim) as well as Penang, Rovaniemi and Alicante. However this is only travels that have been paid by the NHS travel budget and is mostly travel to conferences. None of the external projects are included. During the interviews destinations such as Cambodia, Orlando, Lyon, China, Tanzania, Kenya and Barcelona came up. This are travels that the participants undertook on external projects.

3.6.1 Saturation

"The number of participants in a qualitative study is often small because the depth of information and the variation in experiences are often interest, so a large number of participants are neither practical nor beneficial" (Hennink, et al, 2011, p.88). Hennink et al (2011) uses Glaser and Strauss, (1967) theoretical principle called saturation to guide the number of participants in a qualitative research. This is simply the point at which the

information you collect begins to repeat itself. After reaching information saturation, further data collection becomes redundant (Hennink et al, 2011, p.88), during what point saturation occurs in your research study is what you need identify in your own data while you collect data.

We felt that after 13 participants, but with still three more potential participants to interview, we had reached saturation. We chose therefore not to interview the last three participants as we felt it would not have added new information to our research.

3.7 Data collection

This section will describe the data collection process in order to answer our research question and objectives. It has been established above that we are conducting a qualitative research; and we feel the best data collection method is conducting interviews. The following part will evaluate how to interview, the process of writing an interview guide and benefits and limitations with the process as a whole. There will also be a brief discussion as to why other research methods were not chosen. Lastly it will explain about ethical issues that we might come across as well as the importance of seeking permission.

3.7.1 Interviews

"The interviews were semi-structured to allow participants adequate flexibility in sharing their experience and opinions of the topic" (Buzinde, Manuel-Navarrete & Morais, 2010, p.342). This is the approach we will be adopting, as we feel semi-structured interviews with open-ended questions will allow the participants to better explain their experiences and behaviours. McKercher & Prideaux (2011) stated that both "closed-and open-ended questions were used to assess general awareness, level of concern about the environment, and knowledge about specific issues" (p.330). We will only concentrate on open-ended question apart from some general question at the beginning to establish the setting. We feel

that by using open-ended questions we will have a richer response and hopefully it will minimise the social desirability bias. The participants of our study will have the option to be interviewed in either English or Norwegian; therefore some key wording needs to be developed due to the lack of appropriate words in the Norwegian language. We will use the English word perception in our questions, however as we do not feel the direct translation works in Norwegian, we have been looking through synonyms and ended up with '*mening*'. The interview process will commence on April 22nd and we aim to have the interviews all completed by April 29th. We do recognise that time is limited, however feel that by transcribing and coding the interviews parallel to conducting them, we may have it ready for analysing by May 1st.

In order to conduct interviews, we need to establish which type of qualitative interviewing approach we will be using. Patton (1990) explains about three different variations; the informal conversational interview, the general interview guide approach and the standardized open-ended interview.

The informal conversational interview relies on spontaneity as part of an observation, where the interviewee may not even know they are being interviewed (Patton, 1990). Whereas a general interview guide outlines a set of issues that the interviewer may want to explore, it serves as a guideline only and the questions can be asked in any order, as long as all the areas/topics are covered (Patton, 1990). A standardized open-ended interview consists of carefully worded and structured questions. Here the interviewer wants to ask the same question to every interviewee and keep to the same structure, which may create a loss of flexibility (Patton, 1990). We aim to use the interview guide as it would give us the flexibility to explore topics as and if they arise and still have a guideline as to what we want to cover. The benefits with the interview guide are that it will make sure we cover all

areas of interest and will create an interaction between the interviewee and interviewer. We do recognise that there are limitations to the interview guide. It can be a risk that we rely too much on the guide and this can prevent a good response from the participants. Another limitation we must be careful about is topics that might not be raised during the interview which was anticipated to be raised and will therefore not be covered (Patton, 1990).

As with any research method there are strengths and weaknesses, interviews are no exception.

The following table presents a list of strengths and limitations for in-depth interviews.

Table 3.2: Strengths and limitations (Hennink et al, 2011, p. 131)

Strengths	**Limitations**
Gain information on people's personal experiences, life stories, feelings, ect.	One-to-one interview, no feedback from others
Useful for sensitive topics Gain in-depth information	Need skills to establish rapport, use motivational probes, listen and react to interviewees
Get contextual information about react to interviewees	Flexibility needed to change topic order in interview guide following interviewee's story
Get personal stories, experiences of people	A lot of transcription is needed

We recognise that previous studies have used focus groups (Becken et al, 2007; Hares et al, 2010; Line et al, 2010) when conducting their research. Although focus groups are particularly useful for reflecting the social relations of a cultural group, through direct access to the language and concepts which structure participants' experiences (Hughes & DuMont 1993, quoted in McLafferty, 2004). They are not strong as participant observations when a phenomena is wished to be observed, or are focus groups good in providing rich understanding of the participants' knowledge as it is difficult to conduct in-

depth individual interviews (Hughes & DuMont 1993, quoted in McLafferty, 2004). We feel that by conducting one-one (two) interviews we have the flexibility to interact with the interviewee and can explore issues as and when they arise (Cohen & Higham, 2010). Questionnaire were out ruled due to the quantitative nature of it, we are not concerned about numbers and feel therefore this approach would not benefit us. It was also ruled out due to the small sample size, we do not see it appropriate to use.

3.7.2 Interview guide

"An interview guide is a list of questions used by the interviewer, mainly as a memory aide during the interview" (Hennink et al, 2011, p. 112). The interview guide simply guides the interview. The interview guide has a structure which helps the interviewer too conduct the interview correctly and this is how the interview guide is built up (Hennink et al, 2011)

The interview guide may include some introductory points to explain the purpose of the research, what will be done with the data collected, and outlines the outcome of the research, for example an article or report. In addition the interviewee provides information about the ethical issues concerning anonymity and confidentiality. At this time permission for interviewing the participant is asked and the consent form is signed. Consent for recording the interview is also gathered. After the introduction the interview guide usually starts with a few easy questions about the interviewee to collect some information that will be used anonymous. A set up of the interview guide would be like Hennink et al (2011) describes;

Opening questions are a series of general open questions. The aim with this is to make the interviewee to feel more comfortable and feel like start telling their story when it comes further to the key questions. Our questions will here be what Patton (1990) describe as demographical or background questions.

The main question or key questions; are the central part of the interview guide. These key questions are essential on the research topic and are placed in the middle to make sure there has been established a positive relationship between the interviewer and interviewee. This is where all our main topics will be covered with well-structured and relevant questions (Hennink, et al, 2011).

When the interview is coming to an end it's important to establish and create a distance between the interviewer and interviewee. Closing questions are broader and general and a good closing question would be to ask if the interviewee has anything further to add.

Patton (1990) explains how any interview questions should be developed by using certain established measurement questions. There are six types of questions which can be used to develop interview questions. They are; Experience/behaviour; opinion/value; feeling; knowledge; sensory and background/demographic.

Experience/ behaviour questions explains what participants have done or does and gives an description of experiences, behaviour, actions and activities. Opinion and value questions aim to understand the process of what people think about a topic, whereas feelings questions wants to understand the emotional responses of people to their own experiences and thoughts (Patton, 1990). Knowledge is questions which answers what the participants actual factual knowledge are. Sensory questions attempts to get the participants to describe the stimuli associated with an experience such as smell and taste. Background or demographic questions are general questions about the participants and can be used as an opening question as Hennink et al (2011) explained.

The interview guide was made up of questions from key authors, such as Gössling, Becken, Higham & Cohen (2011); Cohen & Higham (2010): Cohen et al, (2011); Hares et al, (2010); Buckley (2010) and Randlers & Mander (2009). We examined their

methodology and searched for key phrases and questions and developed question based on this. The interview guide can be seen in appendix 1 for Norwegian and appendix 2 for English version.

3.7.1 Interview questions with relevant theory

In this paragraph we will list our research questions and include the background theory used to develop these. In addition explain why we wanted the questions of this type.

- ✓ (Can you please) explain about your daily travel patterns during an average week.

This question is based on Buckley (2010) who saw the need to establish two scenarios in order to evaluate the results. Their current travel patterns were one and we feel this would be relevant for our research and is therefore included. We will have probes depending on how the respondent answers. (Travel to work, transportation mode, will tie in with the last opening question depending on the family situation).

- ✓ Can you describe your work related travels for the past 12 months?

This question is based on Randlers & Mander (2009) and Buckley (2010). Randlers & Mander (2009) identified how there was a tendency to merge business travels with family holidays and so on, this would be identified with this question. As mentioned for the first question Buckley (2010) wanted to establish current travel patterns so we want to base the question on that, but look at the past, which Patton (1990) highlights as a good way, start with the present then move back into past or forward into future.

- ✓ If I were a new employee at Norwegian Hotel School, what could I expect in regards to business travels?

By asking the participants to explain what I can expect will make them feel as an expert and you will most likely get an honest answer (Patton, 1990). This is based on Patton's (1990) opinion/value question type. We want to understand what they think about a topic. Hopefully will answer in line with how their opinions are in regards to business travels

- ✓ What is your perception on air travel for business and/or leisure?

This question is based on Higham & Cohen (2011); Cohen & Higham (2010): Cohen et al, (2011); Hares et al, (2010). Which all identify what perception people have about air travel. Since this is an important part of our research we could not exclude it. We will have probes such as positive and negative aspects. Line et al (2010) uses car transportation instead of aircrafts, however we think it could be used with air travel as well. These questions are here in order to establish what they think and feel about air travel, we are hoping that climate change will be mentioned. This is based on Patton's (1990) question on feelings; we want to understand the emotional responses, including any personal reference/experiences to own behaviour.

- ✓ How have your travel patterns behaviour changed in the last 5 years?
- ✓ Do you think your travel behaviour will change in the future? If no, why not? If yes, why?

We chose to include these questions in order to identify if climate change was an issue therefore related in travel behaviour changes. Including both past and future travels.

- ✓ What is your perception on climate change?

We ask this question last, as we feel we will not steer the participants into climate change thinking if it does not come natural for them. We think that if we would have asked the question in the beginning or had climate change in the tittle, the participants would

automatically be more vary on how they answered. This was also proven during an interview, where the interviewee at this question asked if it was about climate change and then said *" I have to answer more strategically now"* this for us proved that had we mentioned climate change any earlier we could have had a more biased research findings.

3.7.2 Ethical considerations

Ethical issues can emerge differently in research depending on the topic or area. Every researcher has their own personal limit on what they believe is ethical, this is based on their opinions, background, gender, experiences and so on. Therefore, when conducting a research it might be easy to agree on the ethical issues, but in some situations researchers has to carefully assess whether a decision or action is ethical and what the consequences of such a decision or action may be (Hennink et al, 2011). Hennink et al (2011) suggests three core principles that have been created to make sure research is ethical conducted:

- Respect of persons. Participants` welfare should always take precedence over the interest of science or society. Participants should be treated with courtesy and respect, and they should enter into research voluntarily and with adequate information.
- Benefice. Researchers should strive to maximize the benefits of the research for wider society, and to minimize the potential risks to research participants.
- Justice. Researchers should ensure that research procedures are administered in a fair, non-exploitative, and well-considered manner. (p.63).

Hennink et al (2011) then adds the following considerations based on the principles above:

Table 3.3: Ethical principles (Hennink et al, 2011, p.63).

Informed consent	Individuals should be provided with sufficient information about the research, in a format that is comprehensible to them, and makes a voluntary decision to participate in a research study.
Self-determination	Individuals have the right to determine their own participation in research, including the right to refuse participation without negative consequences. And have the right to withdraw from the interview at any time during the process.
Minimization of harm	Researchers should not do any harm to participants or put them at risk
Anonymity	Researchers should protect the identity of research participants at all times
Confidentiality	Researchers should ensure that all data records are kept confidential at all times

In qualitative research the ethical issues are the same as any other research but may be more dominant due to the nature of the specific research. Hennink et al (2011) discusses the reasons for this; firstly, because qualitative method is applied to get to know perceptions, beliefs and feelings of people. More specifically we establish a relationship between researcher and participants which could result in information that should be secured safely. Regarding the three core principles highlighted by Hennink et al (2011) carefully think through each of them. Concerning benefice, Hennink et al (2011) states "as you design your research project, consider who will benefit from the research and whether there will be any benefit for the study community, either directly or indirectly" (p.64). In

addition Hennink et al (2011) say how "qualitative researchers also need to ensure that the approach to research does not exploit the study population or involve their deception in order to conduct the research" (p.65).

This research was conducted with a qualitative research method and since the population of this research was small the researchers gave the interviewees numbers before the interview started. Names of the participants were not written down in the interview guide. These numbers continued with the researchers when they transcribed the interviews. When discussing the findings both in the text and between the researchers' names of the interviewees were not mentioned. Specific information or topics which could reveal who the participants were was either changed or removed.

3.7.3 Seeking permission

Hennink et al (2011) states that "seeking permission is an essential part of any research project" (p.66). "When you enter your study community it is considered good protocol to seek permission to conduct the research from stakeholders or groups within the community" (Hennink et al, 2011, p. 66). In order to receive permission to undertake the study, it is important that we providing information about our research objectives, how the data will be used, who will have access to the data, how we will ensure the anonymity of the study participants and how we will minimise harm to the participants (Hennink et al, 2011). We need to prepare a plan on how we will ensure the anonymity of the study participants. By harm we do not only refer to physical harm, but the mental harm in the form of shame, embarrassment, or social harm in terms of how an individual is viewed or treated by others in their community. The information that we gather needs to be made anonymous, so that no participants can be identified from the research (Hennink et al, 2011). By making the data anonymous we remove any identifiers from the interview

transcripts that may provide a clue as to the identity of the participant; however it also includes to not writing the name of the participants on the tape or using participants` names as file names (Hennink et al, 2011). Within close communities is hard to exclude information which could show who the participants are. NHS is a very small community and with few lecturers it will be hard to mask who the participants are. Since most of the lecturers have travelled to far distances in the world and due to the small population it will make our research harder to "cover" if these participants are sticking out.

As we wanted to investigate the academics and their travel behaviour, we did seek permission to conduct the research. We contacted both the institute leader of the Norwegian hotel school and the Master program coordinator and asked if there were any forms of consent that we had to apply for in order to conduct interviews with the employees at NHS. We were told that there were no policies at NHS, but we were advised to ask each participant if they were willing to participate in our research, which we did and we out of 16 potential participants, we had two who declined and one who was available but after our interviewing deadline had past, and as we felt we had enough with the 13 participants who said yes to participate, thanked the participant but declined.

3.7.4 Interview process

The interview guide was carefully seen through and checked before we started the interview process. The first interview that was conducted gave us many points on both how we should prepare us for the next and the need for changing or adding questions to the interview guide.

After a few interviews we saw the need to add a specific question about climate change, after our question "what is your opinion about air travelling?" We asked the participant about their opinion about the specific theme of climate change and in this way guided their

thoughts in the correct angle since some of the participants directed the conversation in the wrong direction. After receiving a negative response to this particular question from one of the participants we changed the question from “what is your opinion about climate change?” to “What is your opinion about climate and climate change?” We then felt that by adding this question we managed to get all the participants to think about the theme and view their meaning about it.

Additionally some new closing questions were added to make sure we managed to capture what the participants really thought about the theme. With these specific closing questions we felt that the interviewee could not avoid talking about the topic.

Also, the surroundings while conducting the interviews were positive and the interviewers felt acted casually and friendly. Several of the participants did not change or remove documents or computers while the interviews were conducted. Numerous of the participants had a laid back behaviour and did not seem to mind the recorder or our questions. We of course met some negative response but this was anticipated. And even with these responses we felt that all the interviews ended positively.

3.8 Data Analysis

This section will highlight the different choices we have when it comes to analysing the data collected, each approach will be discussed and we will explain the reasons for choosing the one which we feel fit both our research question and approach.

Qualitative research concentrates on the study of social life in natural settings and Punch (2004) explains that analysing qualitative data could be challenging; "Its richness and complexity mean that there are different ways of looking at and analysing social life, and therefore multiple perspectives and practices in the analysis of qualitative data" (p. 199). Mays & Pope (1995) criticize the lack of reproducibility since "the research is so personal to the researcher that there is no guarantee that a different researcher would not come to radically different conclusions" (p.109). In addition Punch (2004) states "For qualitative research, the relevance of the criterion of reproducibility is a matter of debate in the literature" he further adds "but there have been great developments in the analysis of qualitative data in the last 20 years" (p.200). To ensure rigour in a qualitative research the basic strategy Mays & Pope (1996) explain this; "systematic and self-conscious research design, data collection, interpretation, and communication" (p.110). Mays & Pope (1996) also adds that the two goals a qualitative research should seek to achieve firstly; "create an account of method and data which can stand independently so that another trained researcher could analyse the same data in the same way and come to essentially the same conclusion" and secondly; "to produce a plausible and coherent explanation of the phenomenon under scrutiny" (p.110).

3.8.1 Analytic induction and grounded theory.

Grounded theory is an analysis method in order to develop theory during the data collection process. The main aim here is to build theory from the data or ground the theory

in the data (Neuman, 2011). There are several benefits with grounded theory; firstly it adds flexibility and allows the data and theory to interact. Secondly it can help the researcher to stay open to the unexpected. In grounded theory the analysis can change direction of the study; it will allow us to abandon the original research question if we discover something new and exciting. The main principle of grounded theory is to build theory by comparison. The theory will be built from observations to develop broad concepts, which then build principles or themes that connect the different concepts (Neuman, 2011).

Analytic induction or inductive theory is "essentially an explanation for how something works as derived from empirical data" (Hennink et al, 2011, p.259). It provides a framework were we can understand, explain and predict the phenomena and therefore advance our knowledge on the particular phenomena. In order to analyse the data inductively we have to identify and codes from the data. By grouping codes into categories, we can then identify empirical supported links between the different categories and can then construct an explanatory framework. The process moves from a descriptive phase to conceptualisation and build up to theory development (Hennink et al, 2011). However if we feel that we do not need to develop a whole new theory, we can build on a pre-existing theory and expand on it.

"Theoretical extension does not involve the development of new theory per se, but demonstrates the relevance of a pre-existing theory or conceptual framework to a different context or social circumstance from that in which the theory was developed" Hennink et al, 2011, p. 259).

3.8.2 Narrative analysis.

Bryman & Bell (2003) argue that narrative analysis could be used to analyse qualitative interviews, as the participants have in a way told their story and a narrative analysis would help to tell this story. There are three analytical tools to be used; path dependency, periodization and historical contingency. Path dependency can be started with a trigger of events and can then create a deterministic path. In order to explain a path it is important to start with an outcome and then show how the "outcome follows from a sequence of prior events" (Neuman, 2011, p.527). The key is to demonstrate how one event influence and affects the other. Periodization is to divide the flow of events into shorter spells, in order to identify what is significant and common within the spells. "Historical contingency refers to a unique combination of particular factors or specific circumstances that may not be repeated" (Neuman, 2011, p.528).

3.9 Coding

In order to analyse the primary data we have collected, we have to code the appropriate material in the best possible way to get the most out of our research. This section will therefore identify why coding is important and different ways to code depending on the research approach.

"Once data have been transcribed, translated (if necessary) and anonymized, you are ready to begin the task of developing codes" (Hennink, 2011, p.216). The term code refers to an idea, a topic, opinion or issue that is evident in the data, and Hennink et al (2011) describe two different types of codes; inductive codes which have been raised by the participants themselves and deductive codes which are codes that the researcher may have prompted to during the interview, which were derived from literature and theory. Punch (2004) describes coding in the following fundamentally way: "Codes are tags, names or labels,

and coding is therefore the process of putting tags, names or labels against pieces of the data… this may include individual words, or small or large chunks of the data" (p.204). This fundamentally coding helps to set the data in themes and further identify patterns. Punch (2004) states "in view of the volume and complexity of much qualitative data, these early labels become an essential part of subsequent analysis" (p.205).

Coding can be done in more than one way, here we will briefly explain the different types of coding and evaluate which is the best choice for us.

3.9.1 Theoretical coding

Theoretical coding is the procedure for analysing data if we want to develop a grounded theory (Flick, 2007). During this process there are three steps which should be completed; open coding, axial coding and selective coding. Open coding is the first step, which aims to translate data and phenomena into concepts or categories (Flick, 2007; Neuman, 2011). Here the aim is to identify key expressions/words. This process can identify many key words and the next level within open coding would be to group the connecting words together into categories and describe the content of the category. Flick (2007) explains that: "Open coding may be applied in various degrees of detail" (p. 300). The level of coding depends on the research question, however the main goal of coding is to break down and understand the text and then develop categories. All coding should aim to answer the following eight questions: 1) What? 2) Who? 3) How? 4) When? How long? Where? 5) How much? How strong? 6) Why? 7) What for? 8) By which?

Axial coding is the next step and the aim here is to refine and differentiate the categories found during the open coding process (Flick, 2007). At this stage it is important to make connections between concepts. "In axial coding, the categories that are most relevant to the research question are selected from the developed codes and the related code notes" (Flick,

2007, p. 302). By using a model it is easier for the researcher to highlight the relevant main codes/topics and then see connections between them. The last step is selective coding, which is axial coding but adding another dimension to it by comparing it to other groups. This will give you the story, and should be done with all the data collectively and not as a single person or interview (Neuman, 2011 and Flick, 2007).

3.9.2 Thematic coding

Thematic coding is used when "the research issue is the social distribution of perspectives on a phenomenon or a process" (Flick, 2007, p.307). It is believed that different views can be found in different social groups. Thematic coding is about creating a case study for every case/interview however a single case study is first conducted in order to develop a system of which the rest are coded. This type of coding also requires open coding and selective coding and the coding aim to answer the following questions; 1) conditions: Why? What has led to the situation? Background? Course? 2) Interaction among the actors: Who acted? What happened? 3) Strategies and tactics: Which ways of handling situations, e.g., avoidance, adaptation? 4) Consequences: what did change? Consequences, results? (Flick, 2007, p.308).

3.9.3 Qualitative content analysis

Qualitative content analysis "is one of the classical procedures for analysing textual material no matter where this material comes from" (Flick, 2007, p.312). The goal here is to reduce the material. There are several steps in order to conduct a content analysis; step one is to define the material, select the parts which are relevant to the study. Step two will be to analyse the situation of the data collection, how was it done and who was involved. In step three, the material is formally characterised. The fourth step defines the direction of the analysis. Followed by the next step where the research question is differentiated on the

basis of theories. Flick (2007) states that it is important to have a clearly defined research question and that the question must be theoretically linked with previous issues. Lastly analytical units are defined. It has been highlighted by Flick (2007) that qualitative content analysis includes three techniques. Summarising content analysis where the material is being paraphrasing and less relevant information are being skipped. Explicative content analysis is where statements and words are being redefined and "structuring content analysis looks for types or formal structures in the material" (Flick, 2007, p.314). Hsieh & Shannon (2005) discusses three different content analysis approaches; conventional, directed and summative. Conventional approach is used when the aim is to describe a phenomenon and where the existing theory or literature is limited (Hsieh & Shannon, 2005). When coding, a conventional approach allows for the code categories to develop from the data, and the researcher immerse themselves in the data to create new insights. The data collected are usually from interviews, with open-ended questions, where probes also tend to be open-ended questions or based on the participants comments and not so much from pre-existing theory (Hsieh & Shannon, 2005). The second approach is directed content analysis, here there are some existing theory and research already available, however is seems to be incomplete or could benefit from further description (Hsieh & Shannon, 2005). The goal with this type of analysis would be to "validate or extend conceptually a theoretical framework or theory" (Hsieh & Shannon, 2005, p.1281) and is guided by a more structured process in order to provide predictions about variables or relationships between the variables (Hsieh & Shannon, 2005). The data is collected in the same nature as in the conventional approach although the probes are based on predetermined categories and are therefore more structured. Lastly, the third and final approach is summative. This approach starts with identifying and quantifying certain words or content in the text. This is done in order to understand the contextual use of

words, and this is an attempt to explore usage (Hsieh & Shannon, 2005). However it does go beyond word count and includes a latent content analysis, which is the process of interpretation of content. “The focus is on discovering underlying meanings of the words or the content (Hsieh & Shannon, 2005, p.1284).

The coding process will automatically take one of two forms of coding, inductive or deductive. Inductive coding/analysis “refers to approaches that primarily use detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by the researcher” (Thomas, 2006, p. 238). “Deductive coding/analysis refers to data analyses that set out to test whether data are consistent with prior assumptions, theories, or hypotheses identified or constructed by an investigator” (Thomas, 2006, p.238). Although these two approaches are different it is common to combine them, and this is what we will do.

3.9.4 Global analysis

Global analysis is a “pragmatically oriented supplement to other analytic procedures” (Flick, 2007, p.315). The aim is to get an overview of the thematic range of the text and then analyse it.

These are the main approaches of coding, however we do recognise that there are others as well, but they would not be relevant for us and have therefore not been discussed.

Having identified the different approaches there is for us to use when coding and analysing our research material, we have chosen to analyse and code the interviews with content analysis and more specifically conventional content analysis. The process of coding and analysing will be discussed in full in the following section.

Due to time restrictions and the amount of interviews conducted we feel that this qualitative content analysis with both inductive and deductive coding is the best way for us. By conducting a content analysis we can highlight the main issues and reduce the text that proves to be irrelevant. Inductive coding is what the participants state however as we do want to cover certain areas we will have some elements of deductive coding within the coding process.

3.10 Coding process

In order to analyse the data we have collected we have to code it. We have chosen to use a conventional content analysis to code and analyse our findings, and we will use an inductive and deductive analysing approach. This will allow us to identify themes and concepts from our primary research. As well as keep the themes of already presented theories. This is corresponding with the conventional content analysis approach, as we are identifying codes and categories from our primary research and therefore we feel that these two approaches should go hand in hand. And as we want to briefly explore the possibility for grounded theory analysis or at least, theory extension, we believe that these approaches would be the most beneficial for the job.

When we started with the coding process, we chose to follow Zhang & Wildemuth (2009) guideline on how to code qualitative data by follow the 8 steps they presented;

1. Prepare the data.
2. Define the unit of analysis.
3. Develop categories and a coding scheme.
4. Test your coding scheme on a sample of text.
5. Code all the text.
6. Assess your coding consistency.
7. Draw conclusions from the coded data.
8. Report your methods and findings.

It started out with step 1, preparing the data. This step looks at how we should transcribe our interviews. Which questions should be transcribed? Should it be written down word for word or as a summary? Do we include observations we had during the interview? Here we decided to transcribe all the answers, word for word, that the participants gave, but did not include probes from the interviewer, only the main questions were written down to make it easier to read/follow. We did not include any observations into the transcripts. When we conducted the interviews there where a lot of building work taking place outside the building and it could be heard on the tape recording, we believe that this could have taken a lot of time to write up every time there was an outside noise. It was also identified that a few participants laughed a lot and this would also have taken up a lot of time to transcribe and we do not see it relevant to the answers given. Zhang & Wildemuth (2009) goes on to explain step 2 on how to define the unit of analysis. We have chosen to interpret this as the basis material we will be using to code and then analyse. And we have selected to include all the primary data we have. We believe that with only 13 participants and with just under 3 hours' worth of interviews, we need to include it all and it is all relevant. Step 3 is about developing coding categories and schemes (Zhang & Wildemuth, 2009). In order to develop categories and a coding scheme, we used one randomly selected interview transcript and considered what categories, sub-categories and codes to use, that would describe the findings best. We came up with 7 categories and identified sub-categories for the three first categories and then codes. The last 4 categories do not have any sub-categories or codes as we feel it would be too sporadic and will not benefit us, however the main findings will be presented in a short summary before the quotations will be presented. We did step 4 – 6 somewhat simultaneously. We identified between words or phrases that were used repeatedly and this became the code in all 13 interviews. The category was developed from what the question wanted to describe and the sub-categories was

developed to describe the category a bit further. Then examples and definitions were found /developed for the whole scheme. We encountered some inconsistencies on our initial scheme and this was changed in order to best suit our primary data. For instant we had codes made for question 4, 5 and 6 however when we read the transcripts again and did another check on the text and compared it to each other we identified that it was not working with coding these questions and would therefore only do a short summary on the findings. Question 4 had the codes PhD students, permanent employees and external projects, however after rereading the transcript it did not feel right to use a code on this question due to the limited quotations we have. We did the same for question 5 and 6, we made the codes, less, more, no change and for question 6 added maybe. However due to the restricted quotations we felt that it would not be appropriate to use the codes. Question 7 was added after the first few interviews when it was highlighted that climate change would not be mentioned by the participants at their own will. We also added questions regarding climate change and behavioural change in the future. This was done in order to evaluate if climate change would play a part in their personal travel behaviour and if they would change this behaviour. Step 7 and 8 will be included in the main discussion part with relation to theory in chapter 5.

4. Findings

This section will describe the findings from our primary research. Firstly we will present a short description on the participants. We have selected not to describe too much in detail in order to provide with the promised anonymity of the participants. Then the results will be presented divided into the coding categories we identified during the coding process in chapter 3.

The following section briefly introduces the participant of this research. The research had 13 participants which were academics employed by the Norwegian Hotel School. The tenure ranged from recently employed (2years) to having been employed for almost 40years. The education level was expectedly high; with 8 PhD's and 5 Masters divided between the 13 participants.

On the more private questions the 13 participants, 8 reported to be married, 2 divorces, 1 lived with a boyfriend and the rest stated they were single. Between them they had 23 children and eight grandchildren. The participants ranged from age 37 to 69 and the average age calculated to 51 years old. However by dividing the genders the average age for women was 41, 2 and for men 57, 75. This shows that the younger generation of academics at the Norwegian Hotel School is mainly women. We feel that the average age do not show the correct age range of the participants, however needs to be mentioned.

In addition the participants have a wide variety when it comes to their specialty subjects, including leadership, psychology, emotional intelligence, tourism and hospitality to name just a few.

4. 1 Daily transportation usage

The participants were asked to explain their daily travel pattern during an average week as the first question in the interview. We wanted a warm up for the upcoming questions and give the participant a hint on which direction the interview would follow. The first question gave us very similar answers throughout all the interviews and as participant 7 started with "*There is not much variation there*" and this concludes the replies from several more participants indicating that the academics at NHS are very dependent on a car in their daily travels.

Participant 11 replies with a concern that the car is used mostly in an average week "*I drive the car a lot, unfortunately*". Whereas participant 2 argues that usage of the car is very much dependent on the location of the meetings but adds "*Meetings on campus, I walk*".

However there were answers where other transportations were mentioned in addition to the car, such as bus, bike or walking as the most common after car usage.

In short, we can see that during the everyday daily travel behaviour, a car is the most common used mode of transportation. It was only highlighted once about the concern for car usage and the need for a behaviour change. The participants which indicated other modes of transport did so due to the lack of a car, the distance between the workplace and home or other personal benefits, such as cycling to keep fit.

4. 2 Annually work related travels

With the different fields of expertise among the academics at the Norwegian Hotel School (NHS) have we asked about the work related travels the participants had done over the last 12 months. The reason for this is that we wanted to get at overview on how much the academics actually travel. We also wanted to capture destinations and the amount of days

at the destination. The replies showed that the differences in the amount of traveling between the participants varied more than anticipated and depending on their interest and research quantity gave various answers.

A few of the participants had a smaller number of travels per year for different reasons. One participant had a large project that gave little time to take long travels to foreign destinations, something that the participant clearly expressed as a regret and looked forward to more travels in the future. The travels during the past 12 months had mainly been within Norway.

"*So it has been mainly within Norway if I have travelled anywhere else"* (participant 11).

Participant 6 explained the limited amount of work related travels with the reason that the participant chose to avoid these types of trips, additionally two other participants did not have any work related travels in the past 12 months

On the other hand several participants showed to large amount of traveling per year. It was highlighted that most travels was undertaken by aeroplanes with the exception of meeting in the local area, where a car was used.

"*Fly, fly, fly*" (participant 10).

When explaining how work related travels had been for the last 12 months, it was identified that meetings both internationally and nationally, conferences, external projects or research and own research was the main reasons for the travels. It was also mentioned that visiting schools, both within Norway and abroad to recruit new students was a reason, as well as guest lecturing at other universities.

"*Mine have been travels to meetings on international projects, or national projects. I have also been to conferences, both national and international*" (participant 5).

"*Driving to meetings in the local area as well as travels to the other side of the world*" (participant 4).

A few of the participants indicated that they had so many travels in the last 12 months that the calendar had to be brought out and the participant would then read out loud destinations that had been visited.

"*I would have to resort to the calendar because that is where it is stored*" (participant 9).

And participant 9 concluded that there had been a lot of long haul journeys abroad and a lot of travelling for meetings within Norway. There was a general feel that the academics did in fact travel as much as they wanted and as one participant estimated that during a year, four major conferences a year, but indicated that with external projects had a much better opportunity for travels and therefore travelled more.

"*So you could say that I travel once a month international and once a month domestic*" (participant 12).

Several of the participants explained how much work was done before or after a trip. It was described that in order to get the travels they had to either present a paper ready for publishing, be a guest lecture or present their own research at a conference. It was mentioned that there are some hard work behind the travels.

"*It would either be conferences as part of a paper presentation we have to do in order to publish it*" (participant 2).

However the work related travel situation was summed up nicely by one participant who described the difference from being a PhD student to becoming a full time academic, with the amount of travels that had to be undertaken as a student and was therefore content with the reduced amount of travels as an academic.

"*As a PhD student I had up to 180 travel days a year, so 4-5 trips abroad a year is ok, but it needs to be carefully planned*" (participant 2).

This was explained with the fact that as a PhD student the participant had to commute between Universities, which may not be all that uncommon.

4. 2.1 Annually private travels

In addition asking about the participants travel pattern the last 12 months it was naturally to ask about the private travels as well. This was especially important in some of the interviews since a few of the participants did not have any work related travels The topic of private travels became larger in these interviews to make sure that the interviewee understood the purpose and theme of the interview. There seemed to be a consensus that private travels are of high importance and the participants could show for a variety in destinations and were well travelled.

"*Yes, we travel quite a lot…we travel regularly three times a year*" (participant 7).

However it was not only far fletched destinations that attracted the academics, as it was highlighted that destinations within Norway was also visited several times

"*I have used the train and bus, flown occasionally, but very rarely. Bus and train have been the priority*" (participant 9).

To summarise, the academics are fairly well travelled and have clocked up a few air miles between them. It seems to be the norm that an aeroplane is used no matter how near or far they travel. The main reasons for travelling, was conferences, own/external research and meetings, however they do also enjoy travels on a personal holiday basis.

4. 3 Air travels

We asked the participants about their perception on air travels, and by asking this as open as possible, we would leave it to the participant to answer in the direction they thought was most important. The answers given showed a wide range of both opinions and concerns about air travelling.

The first answers was mainly about what they thought about the actually flight, airline company and airport. And the main responses was the efficiency, easy access and fast, however it was highlighted that formalities connected with air travels can be a bore and the security is not a pleasant subject.

"*It is fast, simple and the security is shit*" (participant 10).

"*And I think that kind of domestic flight, instantly over to Oslo it is very fine. This means that one has that closeness to the contacts that one doesn't get through phone or email*" (Participant 10).

Participant 10 states "*It allows me to travel and it allows me to travel many times without really thinking so much that I travel so many times*" when explaining that it's better that way than staying at the place for 14 days.

For the participants with more negative reply to the question about air traveling the topic environmental concern rose:

"*I am a bit concerned with what everyone is nowadays*" (participant 3) and adds; "*With the development with the amount of air trips compared to the caring capacity*.

Here the participant expressed concerns about the increase in air travels in general and how there is a tendency for flying just for the fun of it. The participant indicated that the climate

change debate was noted and we should take notice of it, but not necessary through carbon offsetting schemes. Not only was air travelling linked with the effects on the environment, it was also described as a necessity. "*A necessary evil*", (something you have to do, but you do not have to like it) (Participant 9) and further went on to explain;

"*They are necessary to take if you are travelling far*" (participant 9).

The example used from the participant was that there is no other option if one is travelling to another continent and it was acknowledged that air travels are an efficient way to travel, however the negative environmentally impacts cannot be ignored.

"*Positive in relation to it is an efficient way to travel, but it's clear that it is not an environmentally friendly mean of transportation*" (participant 11).

After the first description on what opinion the participants had on air travel just a few mentioned the topic climate change. This was in connection with emission quotas and carbon offsetting. It was explored by the participants that it was not seen as a necessary good thing as they did not see the results of where the money they paid in was spent. It was also stated that most of the participants did not feel that they could change the climate change situation personally and did not see the need for even small personal changes to the big picture.

"*I do not have a major concern for the climate and emissions quotas and everything like that. I do not think we individuals can do something, it must be settled at a higher level*" (Participant 7).

The negative aspects to emission quotas is explained further with a view on how the money you pay for your carbon footprint is relevant to the cause and again the fear of not

knowing who gets the money and what the fees are used for is something that the participants do not approve off.

"*So you should pay into a bank, you cannot control who will receive the money*" (participant 7). And then adds "*But personally, it's not something that keeps me up at night*".

Indicating that the whole carbon emission scheme and climate change issues are not relevant to the participant.

As established above, most of the participants did not show a great concern about the air travel behaviour they hold and the effects that this air travel might have on the environment in form of climate change. A few participants did however raise a level of concern regarding this, and expressed this in form of what other ways to undertake travels and reduce their air travel. And it was established that train travels or a bus journey could be a good alternative to air travel and to a destinations closer to home a car or other alternative transportation was used.

"*I feel that it (bus or train) is not so bad for the environment, I think a bit about that when I fly, it is often a choice you make because you have limited time and you will get quickly back and forth, but it has negative aspects of it as well*" (participant 11).

"*If there is not a question of time, I really think train can be just as comfortable to travel by and by bus*" (Participant 11).

4. 4 Business travels

This question was on what expectations a new employee may anticipate in relation to business travels on behalf of NHS. We included this question in order to identify what the employees actually knows about how much they can travel and if they know of any

restrictions such as choice of destinations or conferences or if there are any climate change issues or policies they should follow. The participants mentioned three different types of work related travel namely PhD students, permanent employees, and external projects. It was highlighted that no one really knew exactly how often they could travel with monetary help from NHS, however as most of the participants also have external projects they work on it is not so relevant as the external projects or programs will cover the cost. It was stated by a few of the participants that as a PhD student you can expect more travels as there are certain elements you have to cover as part of the program.

"*You need to expect a few trips to conferences and courses and so on and it is a part of the PhD program*" (Participant 2).

The interviews discovered a general census among the participants that as long as the reasoning for travelling is good, you get to travel;

"*It has to be relevant to the job*" (Participant 5).

"*There need to be a purpose with it*" (Participant 1).

"*Everyone gets accepted; very rarely people have been denied a trip that is subject related (participant 13).*

This could indicate that the threshold for accepting work related travels are very low and that NHS sees the academics' travels as a benefit and a resource that is needed and highly sought after, and as the academics know this their threshold for applying may be lower than if NHS had a stricter application process.

When we asked what the purpose of the trip were the main reason that was expressed was conferences and meetings and you would have to travel to where the meetings are.

"*Participate in a conference*" (participant 5) and "*You travel where they are (meetings*)" (participant 3).

It was also pointed out that many of the academics would actively seek out a conference at a favourable destination;

"*Many academics travel, depending on the conferences*" (participant 3).

This could indicate that the conference destination is equally important as the conference for the academics,

"*Here one travels as much to conferences to Australia as one does to Sweden" (participant 11).*

"*Here, people travel all over the world. Japan, Cambodia, Finland, no, they sit with the internet and look up conferences, where would I like to travel to next. I would like to travel to China, there is a conference there and 'svush' they have their trip to China*" (Participant 7).

Participant 4 claims that in theory you "*Get one trip a year*", however participant 8 thinks you can travel: "*Pretty quick as much as you want*". Explaining further that it will not take a long time before you can travel wherever and as often as you like, as long as the trip is subject oriented. There seems to be some confusion on how much you actually can travel, but most of the participants claims that if the reason i.e. it has to be subject related, is good it is up to you: "*You chose where you want to go and most likely there are good financial backing so it is more up to if you have the time to travel*" (participant 8) and they see: "*It's a privilege*" (participant 1) and as participant 11 states "*For some, it would be some of the benefits by working here*".

As we wanted to investigate if there was a tendency to merge work related travels with a family or personal holiday, we asked about a combination of the two. It was proclaimed that a fair bit of the participants wanted to combine the two or extend their stay, however several participants described how work related travels was the most important and you travel to get the job done. It was explained how it was made possible to 'time' a work related trip with a family holiday, mostly to long-haul destinations, and explained how not all travels would be suitable for a work/family holiday combination:

"*You don't want to drag your family to Berlin a rainy cold autumn day*" (participant 4).

It seemed to be a bit more acceptable and achievable to extend the stay:

"*You can combine it with a weekend, it is most likely connected with a weekend anyway, typical from Wednesday to Friday for the conference, then you have the opportunity to bring your family and do some sightseeing, then leave Saturday or Sunday*" (participant 9).

However as you travel to do a job, the conference schedule needs to be family friendly in order to combine it with a family holiday:

"*It depends, if it is a busy conference, there is no point in bringing the family, but if it is only a few hours a day then yes it could be great, but I think you have to pay for it yourself*". (Participant 7).

The biggest issue with combining private and work related travels was time; there was a desire to be able to combine the two, however due to family situations it was commonly acknowledged that it was hardly ever achieved:

"*No, there is no time for that. Not even specific long travels*" (participant 9).

"*Privately it is difficult to travel because of the situation, but the wife is very fond of traveling, but it is a difficult solitaire to get it to go up*" (participant 6).

"*When you have children there is a limit to how long you can stay away*" adding "*often I would like to (combine work and holiday) but you very seldom have the time*" (participant 12) However, a few of the participants managed to combine work related travels with an extended stay or personal holiday.

"*It often happens that I try to add it to a weekend so that I can be over the weekend and visit my family in the area*" (Participant 11).

For longer trips participant 12 answered: "*Yes, maybe once a year when I travel to international conferences. It really depends on the destination*".

The academics at NHS undertake work related travels for external projects or program as well as for NHS and it was identified that they could be a bit more flexible with their time if they had their own research or research for someone else to conduct. Participant 13 talked about how to divide the time between being a researcher and being a tourist; "*On a research trip for example, you can plan your program yourself and you can do a period of intensive interviewing or observations and then plan a period with more free time to be a tourist*" it was also mentioned that "*On your own research project, you kind off choose the destination*" (Participant 3).

4. 5 Changed behaviour

Here we want to establish if the participants have made any work related travel behaviour changes in the past 12months. Again due to the limited information provided we chose not to use codes on individual elements but look at the question as a whole. We did identify that the participants answers could be grouped into two categories; less and same/no

change. This indicated that the participants either expected to travel less with work, such as participant 3 "*Well, yes, sort of, I travel less*" or there would be small if any change to the travel behaviour. This was indicated by participant 5 who stated that depending on what state the participants research is in, there will be "*small changes from year to year*" no one indicated that their travel behaviour had increased over the last 12 months, however a participant explained how there were more national day trips now and also showed some remorse as to how the travelling had become

"*I travelled to Northern Norway, stayed for 3 and ½ hours, and then flew back home again. When you think that I did my first lecture on sustainable tourism back in the 1990s, I know this behaviour is a lot of rubbish*" (participant 4).

4. 6 Possible change

With this question we wanted to investigate if the participants could foresee any air travel behaviour changes and if they did, what were the reasons behind.

The consensus seemed to be in conjunction with the previous question about past changes, as it was highlighted that most of the participants did not expect a dramatic change in their patterns i.e. to reduce their trips. A few of the participants indicated that there might be a change depending on their job situation.

"*Depending on the job I have*" (participant 10).

It was also important to continue travelling or increase the amount with how it is important to keep up with the industry:

"*Probably, either by entering new projects or by travelling abroad to keep up with the situation and meet other academics within my field*" (participant 2)

A handful of the participants did indicate that an increase in travels would not be very likely, and explained how it would not be possible to undertake more work related trips, regardless of how enjoyable they are:

"*I will not travel more, even if the University got filthy rich, as I travel almost as much as I have capacity for"(*participant 8).

"*Travelling is something I really enjoy, but it is very consuming in both time and energy*" (participant 9).

This participant's aim for the coming year would be to reduce the amount of work related trips. On the contrary one participant exclaimed a hope for more trips in the future:

"*I have to admit, I am hoping it would increase a little, I like to travel, I like it a lot, and I would not mind more trips both work related and privately*" (participant 11).

The results also showed that the participants, who did not travel with work or travelled little, were willing to or expected to: "*travel more privately*" (participant 3 and 5), participant 13 went so far to state: "*I might become a full-time tourist*" and participant 7 expected there to be a very little change to the travel behaviour: "*I think we have become accustomed to the fact that we should have these three trips*" (referring to the three trips that is annually taken privately).

4. 7 Climate change

Throughout the interviews we listened out for any acknowledgements regarding climate change awareness when they described their travels. We chose to ask this specific question last in order to give the participants a chance to mention the topic during the interview as and if they saw it important. The results indicated a slightly negative view regarding climate change

"*I have read that climate change has been influenced by human forces, but I have not experienced this change*" (participant 8).

This could indicate that the participant did not believe in the phenomenon of climate change. However there was a variation in the responses regarding climate change. The climate change debate was recognised, but was not actively involved in it. It seemed to be a common feeling amongst a few of the participants that they could not do anything to improve the situation; they wanted someone else to take the responsibility:

"*I feel it is a bit over my level to make decisions on this subject*" (participant 10).

Nevertheless, it was identified that climate change did cause some level of concern for some of the participants;

"... sometime I have a guilty conscious about it" (participant 11).

This could indicate that the topic is playing on the participants mind and the participant is ready to change travel behaviour. And it is summed up nicely with this statement:

"*It is time to do something, it is almost too late to do something, but we still have to do it"* (participant 9).

The findings here clearly indicates that the participants has a varied view regarding climate change, however they are mostly in the denial or unaware stage of the situation, with only a few hints of acceptance and quilt.

The findings identified that most of the participants were aware of climate change and the effects it has on the environment, however several participants did not see the need to change their personal travel behaviour. Both in relation to daily travels and air travel for

both business and leisure. The following chapter will discuss these findings in connection with previous discussed theory.

5 Discussions

This section will discuss the main findings of our research in relation to the relevant theory.

In order to establish were our participants rank on the climate conscious continuum as seen in figure 2.1, we need to identify what behavioural type they are. The literature review identified several types of behaviour and the following section will discuss the findings in relation to theory and establish what behavioural type the participants are.

Behaviour

It can be established that a small number of the participants held behavioural beliefs regarding their air travel behaviour. Ballantyne & Packer (2005) describes how the predominant behaviour will have a cause for concern for the outcome or consequence for the planned behaviour. It was clearly stated by some of the participants that their travel behaviour, both in more general terms of everyday usage of the car and with air travel in particular was of a concern to the environment.

"*I drive the car a lot, unfortunately*" (Participant 11). And goes on to further explain how the bus should be used more often.

Two of the participants did state that due to the lack of a car, other means of transportation was used. It could be a combination of bus, walking or a bike, depending on the participants' mood and work day. They did not give us any indication to why they did not have a car, so one can only speculate if it is environmental concerns or other issues. However by taking all the participants' answers into account it can be stated that they are some of the most environmentally aware participants and it could be assumed that the lack of a car is a conscious decision.

Normative beliefs are social pressure to perform certain behaviour (Cheng & Monroe, 2003, quoted in Budeanu, 2007). In this case, some of the academics do not feel pressured by the NHS or the other academics to perform work related travels. They do not wish to participate in work related travels and we can therefore establish that they do not follow the normative beliefs as held by the others.

"*I have not been travelling with the school since the late 1980s*" (participant 7).

It was described to us by one participant that work related travels was avoided at all costs. This clearly indicates that the participant did not feel any social pressure from the other academics to perform the behaviour in form of work related travels.

Control beliefs are everything that helps us to perform certain behaviours. (Cheng & Monroe, 2003, quoted in Budeanu, 2007) For the academics they can apply for travel grants from both NHS and from different external projects that they may be working on. Therefore the resources are readily available for them supporting their travel behaviour. It was also recognised that in order to travel on a work related trip, one had to have a certain academic or subject relation to where one wanted to go. This could indicate that they do hold the skills as well in order to participate in the behaviour. All in all, it seems that NHS and any external projects make it fairly easy for the academics to undertake work related travels and therefore keep up with the travelling behaviour.

"*Own external projects or programs have own money which the employees can travel on*" Participant 4. And goes on to explain how the employees at NHS can apply for a travel grant. The travel pot is on a certain amount of money and even though each employee would only get one trip paid for a year; there are possibilities to apply and get more, as it has been proven with our research not all the academics travel. It was also identified by investigating travel documents that in 2012, the academics travelled a very small amount,

due to the jubilee of the hotel school. It seemed to show that the academics had more local activities in connection with the jubilee year and therefore did not travel as much. However, when analysing the travel documents it was established that by April 2013, the academics had travelled for almost doubled the amount as in 2012. This then would show that work related travels are on an up.

This could point towards that all the academics at NHS do have some control belief behaviour as they all have access to the same resources and do hold somewhat the same skills.

This concludes the basic underlying behaviour values of the participants; the following section will then take this information and apply it to other types of behaviour more related with environmental concerns.

Environmental behaviour, to choose the option that has the highest benefits against the lowest cost. (Steg & Vlek, 2009). This could be anything from selecting to use Skype meetings instead of spending most of the day travelling to a destination for a meeting lasting a few hours then flying back again. To choose an alternative transportation mode, if it is possible, although this is difficult as travel costs will play a part, which is a subject not raised in this research., however we do recognise that travel costs to the University and NHS is a major factor in order to create environmental behaviour attitudes among the academics.

Habitual behaviour is the behaviour you undertake without an actual view on what you are doing (Steg & Vlek, 2009). It was identified that a few of our participants did not feel that the climate change debate was anything important to take notice of, and this could be an indication of habitual behaviour. They select to believe the information which supports their beliefs and ignore the information which does not conform to their chosen behaviour.

This was clearly expressed by participant 6 whom stated that our question regarding climate change was loaded. The participant then explained that climate change was not a topic of importance and it was therefore felt that our question was not relevant.

"I do not know if there has been any climate change" (participant 8).

"*My perception on climate change is that we need to look beyond the information presented in the media*" (Participant 2).

It was further explained that climate change was only described very one-sided in the media and we as humans needed to get all the facts before we could state if it was a reality or not. The participants then gave examples that clearly indicate a lack of awareness with the effects climate change has on the environment.

"*We can see traces of it (climate change),that the ice caps are melting and so on, but I cannot say I have noticed any climate changes*" (participant 8).

"*Climate change has with other words, played a relative little part in my travel patterns as of now*" (participant 5).

The participant elaborates on how little time is spent on worrying about climate change, which could indicate a lack of awareness from the participant's side.

Pro-environmental behaviour, behaviour where everything is done in order to minimise the negative effect on the environment (Steg & Vlek, 2009).Only a handful of our participants highlighted the concern of how their travel behaviour had a negative impact on the environment.

"*Tourism has a responsibility to the environment*" (participant 13). And goes on to explain how it is difficult to constantly be environmentally aware in the everyday life.

"*Not always as environmentally aware … sad to say, it has to do with time constraints… Try to do what is the environmentally friendly thing most of the time, but sometimes you have to do things that are not that environmentally friendly… Like jumping on that plane to get to that meeting*"

"*I have seen the documentary by Al Gore (an inconvenient truth) and the debate on which direction we are heading, that we have to reduce the emissions and reduce the air travel. Regarding air travel I do not feel I have participated a lot (in reducing the emissions), I am one of the people who keep the air travel industry going in a way*" (participant 9).

Here the participants recognise that their behaviour is not environmentally friendly, but they are highly aware of this and are willing to reduce the impacts, and participant 9 went so far to contemplate reducing the work related travels for the next year by a considerable amount.

Furthermore some of the participants do recognise the climate change debate but do not actively participate in it;

"*Have not engaged in the climate change debate*" (participant 5).

"*I register there is a debate, but I do not actively take part in this debate*" (participant 12).

Intent-oriented behaviour is behaviour that is conducted by egoistic values in order to reduce the negative impact on the environment and change the behaviour (Whitmarsh, 2008). One might change the behaviour to reduce the negative impacts on the environment; however it needs to be beneficial for the person. None of the participants identified this type of behaviour; however participant 8 came close by stating;

"*I have personal joy in changing my behaviour, but it does not mean anything in the big picture*"

Here the participant states that any change gives a personal joy, but do not see that the change will benefit the environment, or does the participant state that the change is to reduce any negative environmental impacts. It could be seen as a bit of a personal conflict from participant 8 who stated previous about not believing in climate change issues, however then follow through with the statement;

"*I have to admit, I do cycle in order to save my carbon footprint*" (participant 8).

Böhler et al (2006) study supports participant 11's, behaviour, the participant clearly stated a concern for the transportation used both in the daily life and when travelling for work related purposes or private holiday on the environment, however the initial wish was to increase the amount of travels for the next year or so.

King et al (2009) indicated in their study that people were reluctant to change their behaviour unless others did as well. Our findings seems to support this, as a fair few of the participants seemed very reluctant to change their travel behaviour, as they did not see the need for their personal behaviour change in order to reduce the negative impacts.

"*I feel it is a bit over my level to make decisions on this subject*" (participant 10) referring to climate change and changing people's travel behaviour.

"*Well it is important enough, I see that, however as I have said I might be a bit lazy as I do not take it personally. There is very little that I can do, but there is probably enough things the Government to do or the UN, but it is all above me*" (participant 7).

Here the participant clearly acknowledge and even admits that it is an issue, however cannot see the connection between personal behaviour and effects that this behaviour may

cause. And the participant goes on to explain that there is something about climate change that makes the participant not take the situation a 100% seriously.

Unfortunately we did not identify any behavioural changes regarding work or family situation or with tenure of the employees. It was identified through the interviews that academics with longer tenure had a tendency to travel less, however reasons for this was not explained in detail. This could be an area to investigate further.

Awareness

Dodds et al (2008) highlights in their study a lack of awareness on climate change among travellers and travel agent in Canada. It looks into how the participants understand and use carbon offsetting when flying. Their study is reinforced by our findings. Even though carbon offsetting was not a question we wanted to explore, it did come up enough in order for us to recognise it. The general census among our participants was that carbon offsetting was not the way to go in order to change air travel behaviour.

"*To earn money on the environment is not right*" (participant 2).

As many of the studies we used chose to exclude business travellers it would be interesting to establish if this is due to who pays for the travels. As all the work related travels undertaken by the academics are either paid for by the NHS or external projects or programs, their personal beliefs on the matter would not be relevant as they do not spend their private money. Gössling (2011) how 55% of French business travellers did not see climate change a reason to influence their travel behaviour. This can also be found among the academics at NHS.

"*Why should I? Yes I am concerned about the environment and I am concerned about climate and the weather and all, but not particular to air travel, they are the Lord's gift to mankind*" (participant 8).

King et al (2009) study was also supported by our findings; it was found that the participants did not see how their personal travels could have been a significant contribution to climate change.

"*I do not see the need to change as I am not a big player in the 'travel market'. But there might be some little things that one can do*" (participant 3).

The participant do not see own behaviour as an issue. This could be explained as the knowledge gap as Gössling and Peeters (2007) described. How knowledge about the effects of climate change and the action people perform i.e. the travel behaviour may not correspond with each other. This seems to be the case for a few of our participants as well.

Participant 5 highlights that the tourism industry might suffer as an effect of the climate change, however it was the tourism industry seen from a destination or tourists' point of view that climate change may have an effect on the weather or temperature. This indicates that the participant understands the climate change effects, but cannot see it as the tourism industry's issue, but more from a tourists' viewpoint;

"*I do acknowledge that tourism destinations depending on weather or temperature may be affected*" (participant 5).

This attitude is completely opposite to participant 13, who recognise that the tourism industry has a responsibility towards the environment.

Combination of trips

Randers & Mander (2009) established how a clear distinction between leisure and business travels was difficult to make. In our research we wanted to investigate if there was a tendency to combine the two, and if doing so was an environmental decision. It was recognised amongst our participants that it would be possible to combine the two travel types, however it was rarely done.

"*Yes, maybe once a year when I travel to an international conference. It really depends on the destination*" (Participant 12).

"*It often happens that I try to add it to a weekend so that I can be over the weekend and visit my family in the area*" (participant 11).

"… *No, there is no time for that*" (participant 9) Signifying that work related travels are for working only.

Participant 4 had on two different occasions travelled with the whole family to long-haul destinations, but gave no indication if this was the only holiday that year.

Several of the participants had either extended the stay or brought family with them. However no one mentioned that a reason for this was to take an extended holiday and reduce private holidays.

We have now explored the findings with the relevant theory and the last step within the discussion is to place all the participants on Higham & Cohen's (2011) climate conscious continuum.

Climate change denial

Participant 6 have been added to this box, due to questioning our question about climate change. It felt that the participant did not believe in any form natural or human induced climate change. This was also supported by participant 1, which upon being questioned about the perception of climate change and if the participant was concerned, the reply was;

"*No I do not; I could say that I do but I do not do it*" (*Participant 1).*

This participant willingly admitted when asked, that it was an issue that the participant did not spend much time reflecting on. And participant 8 is denying any possibilities to change the air travel behaviour as a way of combating the negative impact on the environment.

"*It is the total package, when all relevant information is considered, I would not change my air travel behaviour*" (participant 8).

Participant 8 stated that air travel was one of the best inventions known to mankind and stated that personal air travel was roughly once a month.

We feel that these participants do not recognise the impacts that air travel have on the environment and are therefore in the denial stage.

Climate change unaware

Participant 12 acknowledges the climate change debate, however stated previously, is not actively involved in the debate. We have chosen to place this participant within this bracket due to the lack of involvement combined with the frequent air travel trips abroad.

Participant 10,"*I think that the type of domestic flight, which takes you instantly to Oslo, is very nice. This means that one has the closeness to the contacts that one does not achieve through a telephone or email*". The participant then clarifies how it would be more

beneficial to travel multiple times back and forth to a domestic destination then to spend a period of time at the destination. This evidently specifies that there is no awareness regarding the impacts air travel has on the environment.

Participant 2 "*I have a healthy scepticism to what is being presented*". Throughout the interview with this participant, it became evident that the participant wanted to have all the facts presented before taking a stand. It was also apparent that the participant would not take any responsibility for the climate change and expected someone else to deal with it. Although the impacts were recognised by the participant; there was no apparent change in behaviour. These participants are placed within the unaware bracket as there seems to be little connection with the air travel behaviour and environmental issues, although they may recognise the concept of climate change, we feel that these participants need more 'proof' in order to change their behaviour.

Acceptance without behaviour change

"*I am a bit naïve and a bit lazy in this area (climate change)"* (Participant 7).

This participant understood the importance of changing travel behaviour, however were unwilling to do so, as it was thought that others could do more on a higher level before it got to the personal level. This was also reinforced by participant 3, which did not see the personal need for air travel behavioural change.

"*Try to have a vehicle which is least problematic climate wise and try not to drive more than necessary*" (Participant 5) and goes on to explain that there is a possibility of exchanging the current car with an electric car sometime in the near future. This is a small step in changing the behaviour and although the participant has not "*engaged in the climate change debate*" the issue seems to be accepted. This could indicate that this participant is

moving towards a location between acceptance and carbon conscience. This is where we identified participant 11 to be located.

”*One has a responsibility for thinking about it (climate change), but often it is that you think it is important but in real life one take the easy options and here one has to work with oneself and maybe think on alternatives as it is important*” With this statement the participant clearly indicates that climate change awareness is a high priority, however the participant cannot be placed within the carbon conscience box due to the desire for more travels both work related and privately. Even though the participant also stated that train and bus could be used more, the participant concluded with “*I am better in theory then in real life*” and “*Well, it is just as bad for the environment if you travel for work or privately*”.

Air travel with a carbon conscience

“*It is time to do something, it is almost too late, but we still have to do it*” (Participant 9) whereas participant 13 proclaims; “*should be more concerned about it*”.

We feel that these three participants (9, 13 and 4) have the air travel behaviour and the climate change awareness in order to add them in the air travel with a carbon conscience bracket. They all explained throughout the interviews that they are aware and recognise that their behaviour has an impact on the environment and they are willing to try and reduce this. As participant 4 states; “*We fly very rarely, we could because it is not as expensive as it used to, but we are trying to be more aware about other ways to travel*” and goes on to explain how the participant is “*very aware and concerned about it (climate change)”.*

Carbon neutral

Our research did not identify anyone to fit this bracket. We recognize that their employment at the Norwegian Hotel School could affect the lack of carbon neutral behaviour. Due to the fact that the University is a research University and the employees undertake research, guest lecturing, presentations and attend conferences and meetings as part of their work position.

To conclude the discussion, we have, based on the findings on both daily travels and air travel behaviour, and established where the academics are on the air travel continuum. Our findings indicated that only three of our participants did see climate change as a real risk and tried to act accordingly. The rest was identified as unwilling to accept, unaware or in denial about climate change. Our research objectives also included how aware are the academics about climate change, and what is the academics attitude towards their personal air travel behaviour. By combining these objectives with our main research question we feel we can with confidence state that the academics do not have a high level of awareness concerning climate change issues and do not see the connection between personal behaviour and impacts on the environment.

6 Conclusions

Our research question was to *explore if there is a relationship between the academics business air travel behaviour and climate change awareness*, Combining this with the answer from the more specific objectives of research question 1 were we wanted to evaluate how aware are the academics about climate change and research question 2 what is the academics attitude towards their personal air travel behaviour. We feel that our findings did seem to support the empirical work relating to travel behaviour and climate change awareness and attitude. We achieved a general census amongst the academics, a level of unawareness or acceptance without travel behaviour changes when adding the participants into Higham & Cohen (2011) air travel behaviour continuum. We can therefore establish that due to the level of travels undertaken by the academics and the placing on the continuum, there is no positive relationship between what they know and how they act. This could also be seen in the empirical work discussed in chapter 2, although with different population groups. Therefore we feel we have supplemented the empirical work with a theory extension on the existing theory by investigating University academics and with employees within the tourism, hospitality and restaurant field. Our findings indicated that the academics in our study did travel extensively and out of the 13 participants, we felt comfortable to only add three participants within the air travel with a carbon conscience bracket. The others seemed to be more unaware, unwilling or in denial regarding the impacts air travel have on the environment. We want to conclude this thesis with a statement from one of our participants which sum up the situation nicely;

"*Eventually you learn, hopefully*" (participant 13).

6.1 Recommendations

- Further and more in-depth studies on additional academics including other faculties in order to get a larger overview of the situation.
- Investigate more in-depth how the tendency on merging work related travels with personal holidays. Do participants travel less if they combine types of trips? This was not identified in this study-
- Investigate how tenure and family life may influence the work related travel behaviour.
- This type of research could be extended to other industries.
- As our empirical research showed, not many studies has involved business travellers and this could be a future study, to investigate their attitude to air travel and climate change.

6.2 Implications

This segment will show the implications that our research may have for both theory and management and more specific for the Norwegian hotel school and the University of Stavanger.

6.2.1 Theory

We feel that our research supports the previous empirical work conducted around the issue of climate change and air travel behaviour and attitude. We can establish that our researched population add itself into the other investigated groups, such as nationalities, tourists, young people and students. And the results are very similar, the academics are not that aware on their impact on the environment due to their air travel behaviour. We can therefore establish that our research has added a different investigated population to the overall issue and have consequently built on the pre-existing theory.

6.2.2 Management

We believe that our research could be highly valuable to the Norwegian hotel school. We have established that most of the academics we have interviewed did not see the connection between their personal air travel behaviour and the impacts on the environment. They did not acknowledge that their behaviour had an impact and did not see the need to change their behaviour. For the Norwegian hotel school, this is valuable as it would provide them with some background information that can be built on this in order to change the attitude. The academics need to be made more aware of everyday routines that can be changed. We recognise that any massive changes are not going to happen overnight, but by starting with the small, easy to achieve goals there can be a change in behaviour. The school could provide bus passes or bicycles for the employees and participate in different competitions such as cycle to work campaign and so forth in order to get the academics involved. In the long run, there should be stricter guidelines on how to apply for travel grants. The criteria should be stricter in order to be able to attend conferences and meetings. The Norwegian hotel school should also explore the possibility of more usage of technology when providing lectures and seminars. The foreign based academics should plan a busier schedule when first visiting Stavanger, although this may not be realistic to achieve. However, what the Norwegian hotel school decide to do in the future, it is definite that something needs to be done, and the level of awareness needs to be raised.

6.3 Limitations

- Due to the employment circumstances the academics' travel patterns change over the years. This depends on their current research situation and if they are involved in external projects and programs. A new project may start up or an existing may close down and this will influence the travel behaviour. Therefore it could be very difficult to replicate the findings.
- The presented research was conducted at the Norwegian Hotel School and we feel that due to the nature of the school being a tourism and hospitality specialist the results could then be different if a different faculty was investigated.

References

Aall, C., & Høyer, K.G., (2005). Tourism and climate change adaptation: the Norwegian case. In: Hall, C.M., & Higham, J., (2005). *Tourism, recreation and climate change*. Great Britain: Channel View publications.

Adger, W.N., Arnell, N.W., & Tompkins, E.L., (2005). Successful adaptation to climate change across scales. *Global Environmental Change*. 15, 77-86.

Ajzen, I., (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision Processes*. 50, 179-211.

Anable, J., Lane, B., & Kelay, T., (2006). *An evidence base review of public attitudes to climate change and transport behaviour.* The Department of Transport.

Antimova, R, Nawijn, J., & Peeters, P., (2012). The awareness/attitude gap in sustainable tourism: a theoretical perspective. *Tourism Review*, 67(3), 7-16.

Ballantyne, R., & packer, J., (2005). Promoting environmentally sustainable attitudes and behaviour through free-choice learning experiences: What is the state of the game? *Environmental Education Research*, 1-20.

Bamberg, S., & Moser, G., (2007). Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour, *Journal of Environmental Psychology*, 27, 14-25.

Barr, S., Gilg, A & Shaw, G., (2011). Helping people make better choices: Exploring the behaviour change agenda for environmental sustainability. *Applied Geography*, 31, 712-720.

Becken, S., (2002). Analysing international tourist flows to estimate energy use associated with air travel. *Journal of Sustainable Tourism*, 10(2), 114-131.

Becken, S., (2004). How tourists and tourism experts perceive climate change and carbon-offsetting schemes. *Journal of Sustainable Tourism*, 12(4), 332-345.

Becken, S., (2007). Tourists' perception of international air travel's impact on the global climate and potential climate change policies. *Journal of Sustainable Tourism*, 15(4), 351-368.

Bostrom, A. Granger Morgan, M. Fischhoff, B. read. D., (1994). What do people know about global climate change? 1. Mental models. *Risk Analysis*, 14(6), 959-970.

Boulton, M. & Fitzpatrick, R., (1997). Evaluating qualitative research. *Evidence-Based Health Policy and Management*, 1(4), 83-85.

Brouwer, R. Brander, L., & van Beukering, P., (2008). "A convenient truth": air travel passengers' willingness to pay to offset their CO2- emissions. *Climatic Change*, 90, 299-313.

Bryman, A., & Bell, E., (2003). *Business research methods*. Gosport: Oxford University press.

Buckley, R., (2010). Tourism under climate change: will slow travel supersede short breaks? Royal Swedish academy of science. *AMBIO*, 40, 328-331.

Budeanu, A., (2007). Sustainable tourist behaviour – a discussion of opportunities for change. *International Journal of Consumer Studies*, 31, 499-508.

Burns, P. & Bibbings, L., (2009) The end of tourism? Climate change and societal challenges. *Twenty-First Century Society: Journal of the Academy of Social Sciences*, 4(1), 31-51.

Busen, R. & Schumann, U., (1995). Visible contrail formation from fuels with different sulphur content. *Geophysical Research Letters*, 22(11), 1357-1360.

Buzinde, C.N, Manuel-Navarrete, D., & Morais, E.E.Y.D., (2010). Tourists' perceptions in a climate of change; Eroding destinations. *Annals of Tourism Research*. 37(2), 333-354.

Böhler, S, Grischkat, S, Haustein, S., & Hunecke, M., (2006). Encouraging environmentally sustainable holiday travel. *Transportation Research Part A*, 40, 652-670.

Carlson, N.R., & Buskist, W., (1997). *Psychology; the science of behaviour*, 5th edition. USA: Allyn & Bacon.

Cohen, S.A & Higham, J.E.S., (2010). Eyes wide shut? UK consumer perceptions on aviation climate impacts and travel decisions to New Zealand. *Current Issues in Tourism*, 14(4), 323-335.

Cohen, S.A, Higham, J.E.S & Cavalier, C.T., (2011). Binge flying behavioural addiction and climate change. *Annals of Tourism Research.* 38(3), 1070-1089.

Collins English Dictionary (2003). *The free dictionary; academic*. Available from: http://www.thefreedictionary.com/academic accessed 03/06/2013.

Coleman, R.F., (1996). A new formulation for the critical temperature for contrail formation. *Journal of Applied Meteorology*, 35, 2270-2282.

Corner, A., & Randall, A., (2011). Selling climate change? The limitations of social marketing as a strategy for climate change public engagement. *Global Environmental Change*, 21, 1005-1014.

Denstadli, J.M., (2003). Samferdsel; Videokonferanser: Gir begrenset nedgang i reiseaktiviteten (video conferences, give limited reduction in travel activities). Available from: http://samferdsel.toi.no/article11767-332.html accessed 14/03/2013.

Denstadli, J.M. Hjorthol, R., & Lian, J.I., (2002). *Samferdsel; RVU 2001: Offentlig ansatte reiser hyppig på kurs og konferanser* (Public employees travel regularly on training courses and conferences). Available from: http://samferdsel.toi.no/article11732-323.html accessed 14/03/2013.

Dickinson, J., & Lumsdon, L., (2010). *Slow travel and tourism*. UK: Earthscan.

Dodds, R. Leung, M., & Smith, W., (2008). Assessing awareness of carbon offsetting by travellers and travel agents. *International Journal of Tourism and Hospitality Research*, 19(1), 135-148.

Flick, U., (2007). *An introduction to qualitative research. 3rd edition*. Trowbridge: Sage Publishing.

Füssel,H.M., (2007). Vulnerability: A generally applicable conceptual framework for climate change research. *Global Environmental Change*, 17, 155-167.

Graham, A, Papatheodorou, A, & Forsyth, P., (2008). *Aviation and tourism: implications for leisure travel.* s.l, Ashgate Publishing, Ltd.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). London: Sage.

Gössling, S., (2002). Global environmental consequences of tourism. *Global Environmental Change,* 12, 283-302.

Gössling, S., (2011). *Carbon management in tourism: mitigating the impacts on climate change*. Padstow: Routhlegde.

Gössling, S., & Peeters, P., (2007). 'It does not harm the environment!' An analysis of industry discourses on tourism, air travel and the environment. *Journal of Sustainable Tourism*, 15(4), 402-417.

Gössling, S, Bredberg, M, Randow, A, Sandstrom, E., & Svensson, P., (2006). Tourist perceptions of climate change: A study of international tourists in Zanzibar. *Current Issues in Tourism*. 9(4/5), 419-435.

Gössling, S, Scott, D, Hall, C.M, Ceron, J-P, & Dubois, G., (2012). Consumer behaviour and demand response of tourists to climate change. *Annals of Tourism Research*. 39(1), 36-58

Hall, M., (2005). Reconsidering the geography of tourism and contemporary mobility. *Geographical Research*, 43(2), 125-139.

Hall, M., (2012). Tourism and climate change: Knowledge gaps and issues. In Singh, V., (2012). *Critical debates in tourism*. Great Britain: Channel View publications.

Hamilton, J, M, Maddison, D, J, & Tol R. S.J., (2005). Climate change and international tourism: A simulation study. *Global Environmental Change.* 15 (3), 253-266.

Hares, A, Dickinson, J., & Wilkes, K., (2010). Climate change and the air travel decisions of UK tourists. *Journal of Transport Geography*, 18, 466-473.

Hennink,M, Hutter, I. & Bailey, A., (2011). *Qualitative Research Methods.* Padstow: Sage Publications Limited.

Higham, J.E.S., & Cohen, S.A., (2011). Canary in the coalmine: Norwegian attitudes towards climate change and extreme long-haul air travel to Aotearoa/New Zealand. *Tourism Management*, 32, 98-105.

Holley, D. Jain, J., & Lyons, G., (2008). Understanding business travel time and its place in the working day, *Time and Society*, 17(1), 27-46.

Hsieh, H.F., & Shannon, S.E., (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.

Høyer, K.G., & Aall, C., (2005). Sustainable mobility and sustainable tourism. In: Hall, C.M., & Higham, J., (2005). *Tourism, recreation and climate change*. Great Britain: Channel View publications.

Jons, H., (2007). Transnational mobility and the space of knowledge production: a comparison of global patterns, motivations and collaborations in different academic field. *Social Geography*, 2, 97-114.

Kaiser, F.G. Ranney, M. Hartig, T., & Bowler, P.A., (1999). Ecological behavior, environmental attitude, and feelings of responsibility for the environment. *European Psychology*, 4(2), 59-74.

Kester, J.G.C., (2013). *2012 International Tourism Results and Prospects for 2013*. available from: http://media.unwto.org/en/press-release/2013-01-28/international-tourism-continue-robust-growth-2013 accessed 21/03/2013.

King, S. Dyball, M. Webster, T. Sharpe, A. Worley, A., & DeWitt, J., (2009). *Exploring public attitudes to climate change and travel choices: deliberative research*. Department of Transport, People Science and Policy ltd.

Kirk, J. & Miller, M.L., (1990). *Reliability and validity in qualitative research*. USA: Sage publications.

Kollmuss, A., & Agyeman, J., (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Education Research*, 8(3), 239-260.

Krefting, L., (1991). Rigor in qualitative research: the assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45(3), 214-222

Line, T, Chatterjee, K., & Lyons, G., (2010). The travel behaviour intentions of young people in the context of climate change. *Journal of Transport Geography*, 18, 238-246.

Line, T, Chatterjee, K., & Lyons, G., (2012). Applying behavioural theories to studying the influence of climate change on young people's future travel intentions. *Transportation Research part D*, 17, 270-276.

Marshall, M,N., (1996). Sampling of qualitative research. *Family Practice* 13(6), 522-525.

Marquart, S. Ponater, M. Mager, F. & Sausen, R., (2003). Future development of contrail cover, optical depth, and radiative forcing: impacts of increasing air traffic and climate change. *Journal of Climate*, 16, 2890-2904.

Mason, K.J., (2002). Future trends in business travel decision making. *Journal of Air Transportation*, 7(1), 48-68.

Mayor, K., & Tol, R.S.J., (2008). *Scenarios of carbon dioxide emissions from aviation*, ESRI working paper, No 244, http://hdl.handle.net/10419/50145

Mays, N., & Pope, C., (1995). Qualitative research: Rigour and qualitative research. *British Medical Journal*, 311, 109-112.

McKercher, B. Prideaux, B. Cheung, C., & Law, R., (2010). Achieving voluntary reductions in the carbon footprint of tourism and climate change. *Journal of Sustainable Tourism*, 18(3), 297-317.

McKercher, B., & Prideaux, B., (2011). Are tourism impacts low on personal environmental agendas? *Journal of Sustainable Tourism*, 19(3), 325-345.

McLafferty, I., (2004). Focus group interviews as a data collection strategy. *Journal of Advanced Nursing*, 48(2), 187-194.

Moser, S.C., (2010). Now more than ever: the need for more societally relevant research on vulnerability and adaptation to climate change. *Applied Geography*, 30, 464 – 474.

Murtagh, N, Gaterslebenm B & Uzzell, D., (2002). Self-identify threat and resistance to change: evidence from regular travel behaviour. *Journal of Environmental Psychology*, 32, 318-326.

Nawijn, J., & Peeters, P.M., (2010). Travelling 'green': is tourists' happiness at stake? *Current issues in Tourism*, 13(4), 381-392.

Neuman, W.L., (2011). *Social research methods: qualitative and quantitative approaches*.7th edition. USA:Pearson Education limited.

Nordhagen, S, Calverley, D, Foulds, C, Thom, L.L., & Wang, X., (2012). *Credibility in climate change research: a reflexive view.* Tyndall centre for climate change research. Working paper 12. April 2012.

OECD., (2004). *Glossary of statistical terms; carbon dioxide emissions*. Available from: http://stats.oecd.org/glossary/detail.asp?ID=6323 accessed 23/03/13.

Parry, M., (2001). Viewpoint: Climate change: Where should our research priorities be? *Global Environmental Change,* 11, 257-260.

Patton, M.Q., (1990). *Qualitative evaluation and research methods*, 2nd edition. Newsbury Park: Sage publications.

Pernecky, T. & Jamal, T., (2010) (Hermeneutic) phenomenology in tourism studies. *Annals of Tourism Research,* 37(4), 1055-1075.

Punch, K. F., (2004). *Introduction to Social Research Quantitative & Qualitative Approaches*. Trowbridge: Sage Publications Limited.

Randles, S. & Mander, S., (2009). Practice(s) and ratchet(s): A sociological examination of frequent flying. Chapter 11, 245-271. In: Gössling, S, & Upham, P., (2009). *Climate Change and Aviation: Issues Challenges and Solutions*. London: Earthscan Limited.

Reber, A.S. & Reber, E,S., (2001). *The Penguin dictionary of psychology*. USA:Penguin books.

Reisinger, Y., & Turner, L.W., (2003). *Cross-cultural behaviour in tourism: concepts and analysis.* Bodmin: Elsevier, Butterworth-Heinemann.

Scott, D., & Becken, S., (2010). Adapting to climate change and climate policy: progress, problems and potentials. *Journal of Sustainable Tourism,* 18(3), 283-295.

Scott, D. Peeters, P., & Gössling, S., (2010). Can tourism deliver its 'aspirational' greenhouse gas emission reduction targets? *Journal of Sustainable Tourism*, 18(3), 393-408.

Smeby, J.C., & Trondal, J., (2003). Globalisation or Europeanisation? International contact among University staff. *Higher Education*, 49(4), 449-466.

Smith, I.J., & Rodger, C.J., (2008). Carbon emission offsets for aviation-generated emissions due to international travel to and from New Zealand. *Energy Policy*, 37(9), 3438–3447.

Stabler, M.J., & Goodall, B., (1997). Environmental awareness, action and performance in the Guernsey hospitality sector. *Tourism Management*, 18(1), 19-33.

Statistics Canada., (2009). *Statistics: Power from Data; Main page for Sampling methods; non-probability sampling*. Available from: http://www.statcan.gc.ca/edu/power-pouvoir/ch13/nonprob/5214898-eng.htm#a1 accessed 30/03/2013.

Steg, L., & Vlek, C., (2009). Encouraging pro-environmental behaviour: an integrative review and research agenda. *Journal of Environmental Psychology*, 29, 309-317.

Strasdas, W., (2010). Carbon Management in Tourism – A Smart Strategy in Response to Climate Change. In: Conrady, R, & Buck, M., (2010). *Trends and Issues in Global Tourism2010,* 57-69. S.L: Springer.

Susilo,Y.O, Williams, K, Lindsay, M, & Dair, C., (2012). The influence of individuals' environmental attitudes and urban design features on their travel patterns in sustainable neighbourhoods in the UK. *Transportation Research Part D: Transport and Environment.* 17(3), 190-200.

Swarebrooke, J., & Horner, S., (2007). *Consumer behaviour in tourism, 2nd edition*. The Netherlands: Butterworth-Heinemann.

Thomas, D, R., (2006). A General Inductive Approach for Analysing Qualitative Evaluation Data. *American Journal of Evaluation*. 27(2), 237-246

United Nations 2013. *United Nations framework convention on climate change. Article 1: Definitions.* Available from: http://unfccc.int/essential_background/convention/background/items/2536.php Accessed 05/03/2013.

Weaver, D., (2011). Can sustainable tourism survive climate change? *Journal of Sustainable Tourism*, 19(1), 5-15.

Wit, R.C.N., & Dings, J.M.W., (2002). Economic incentive to mitigate greenhouse gas emissions from air transport in Europe. *Solutions for Environment, Economy and Technology*. Available from: http://ec.europa.eu/transport/modes/air/studies/doc/environment/2002_11_gas_emission_en.pdf accessed: 23/02/2013.

Williams, J.A., & McNeil, K.R., (nd). A modified travel career ladder model for understanding academic travel behaviours. *Journal of Behavioural Studies in Business*.

Wilkerson, J.T, Jacobsen, M.Z, Malwitz, A. Balasubramanian, S, Wayson, R, & Fleming, G, et al (2010). Global Commercial Aviation Emissions Inventory for 2004. Available from: http://www.stanford.edu/~wilkejt1/Documents/2004FlightEmissions_AGU2008_jtw.pdf accessed: 20/03/2013.

Wikipedia, (2013). Nitrogenoksid. Available from: http://no.wikipedia.org/wiki/NOx accessed 13/03/2013.

Whitmarsh, L., (2008). Behavioural responses to climate change: Asymmetry of intentions and impacts. *Journal of Environmental Psychology*. 29(1), 13-23.

World Tourism Organisation (WTO) (2013). *World tourism organisation UNWTO: International tourism to continue robust growth in 2013*. Available from http://media.unwto.org/en/press-release/2013-01-28/international-tourism-continue-robust-growth-2013 accessed 21/03/2013.

World Tourism Organisation (2012). *UNWTO presents overview of international tourism in 2010* available from: http://media.unwto.org/en/news/2011-06-29/unwto-presents-overview-international-tourism-2010 accessed 21/03/2013.

Appendixes

1 Interview guide Norwegian

Norsk versjon av intervju guiden

Først vil vi få takke for deltakelsen. Vi vil gjerne få fortelle litt om generel informasjon rundt denne undersøkelsen. Vi utforsker de akademisk ansatte på NHS og deres reisevaner både i jobbsammenheng og private. Vi vil derfor spør om ting som antall reiser og destinasjoner. Vi vil forsikre oss om at ingen ekte navn vil bli brukt i oppgaven og destinasjoner vil ikke bli brukt, destinasjoner vil bli omgjort til reiselengde i kilometer og dette vil bli brukt i oppgaven. Vi vil gjerne bruke destinasjoner som eksempel på hvor dere reiser, men det vil ikke kunne brukes til å identifisere dere på noen måte. Hver deltaker vil få et nummer. Intervjuene vil bli tatt opp og brukt som 'bevis' da vi føler at opptak kan gi oss mindre sjanse for feil, da notatskriving for hånd vil ikke gjøre deres svar rettferdig. Opptak og notater vil bli oppbevart i et låsbart skap på universitetets område.

Innledende spørsmål:

Alder: Ansettelses tid:

Utdannelse nivå: Fagområde:

Status (familie):

Spørsmål:

(Kan du vennligst) fortelle om din daglige reise rutiner i løpet av en gjennomsnittlig uke?

Kan du beskrive dine jobb relaterte reiser i de siste 12 månedene?

Hvilken oppfatning har du angående flyreiser?

Hvis jeg var nyansatt her ved NHS, hva kan jeg forvente meg i forhold til jobb reiser?

Hvordan har ditt reisemønster forandret seg i løpet av de siste 5 årene?

Hvordan tror du at ditt reisemønster vil forandre seg i fremtiden?

Hva er din oppfatning av klima forandringer?

2 English interview guide

Introduction:

Thank you for your participation. We will be investigating the academics at NHS travel patterns both work related and privately. We greatly appreciate your cooperation. Firstly we would like to explain some general information about anonymous participation. We will not record any names for the purpose of this study, and each participant will be allocated a number. Destinations mentioned will be changed into kilometres and we will use an already established definition on travel length based on the length. However we would like the permission to state a list of destinations within our paper, but with no references to the participants. We would record the interview to make sure we make the interviewee justice by not misquoting, if the interview was recorded short-hand. The recordings and transcripts will be stored in a secure lockable locker at the University premises.

Opening questions:

Age.

Tenure (how long with the University).

Highest educational level.

Field of subject.

Family situation.

Questions:

(Can you please) explain about your daily travel patterns during an average week.

Can you describe your work related travels for the past 12 months?

If I were a new employee, what could I expect in regards to business travels for NHS?

What is your perception on air travel for business and/or leisure?

How have your travel patterns behaviour changed in the last 5 years?

Do you think your travel behaviour will change in the future?

What is your perception regarding climate change.