



FACULTY OF EDUCATION
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BRIDGING THE ATTITUDE-ACTION GAP: YOUNG ADULTS' ATTITUDES, PERCEPTIONS, AND SUSTAINABLE TRAVEL BEHAVIOUR IN SWEDEN AND GERMANY

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Examiner:	Ebba Lisberg Jensen

Abstract

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- Aim:** The aim of this study was to investigate and interpret the perceptions, attitudes, and justifications for travel behaviour among seven young adults in Sweden and Germany in the context of sustainable tourism, and how education and ESD is perceived to have shaped travel attitudes and behaviours. The study also sought to better understand how educational interventions can be better designed to foster consistent pro-environmental travel behaviours among seven young adults in Sweden and Germany. Three research questions were formulated with the purpose of guiding the study process and be answered after the data analysis.
- Theory:** Two theoretical frameworks were used in this research study based on their fitting alignment with perspectives on Education for Sustainable Development (ESD). These were Critical Theory (CT) and the Theory of Reasoned Action (TRA). The intention of combining these two theories was motivated by both the need of a behaviour centred theory along with a lens to deepen the understanding of the study sample's abilities to reflect on power structures and injustices in society. TRA guided and sustained the aim of the research study that is focused on understanding a certain behaviour among the study population. Incorporating CT as a framework served to address the study's aim of fostering critical awareness and reflection.
- Method:** The design for this research study analysed qualitative semi-structured interviews from a sample of seven participants who were interviewed during online meetings or in person. The analysis of data was conducted using a thematic analysis with a deductive approach.
- Results:** The results indicated a widespread awareness and willingness for sustainable behaviors, and participants put faith in social norms and influences for further development of sustainable tourism and travel. Participants also portrayed disbelief in the current trajectory of sustainable development with justifications of economic and socio-cultural barriers to stand in the way of making sustainable choices. The level of education and ESD was an important factor for the level of dedication to sustainable practices and ability to critically reflect on matters that expanded over more than just the environmental aspect on sustainability.

Foreword

This Master's thesis represents my personal dedication and interest for all matters related to Sustainable Development (SD) and contemporary challenges within both education, travel and tourism combined. I wish for this study to be a guiding and encouraging piece that can further improve the development of sustainable tourism and sustainable mindset among young adults and support the already climate change concerned young citizens that to a far extent are able to recognize the global challenges we are facing today.

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List of abbreviations

CET Cognitive Evaluation Theory

CT Critical theory

ESD Education for Sustainable development

SDG Sustainable Development Goals

SD Sustainable Development

STD Self-Determination Theory

TRA Theory of Reasoned Action

Introduction

The topic for this Master's thesis is directed at progressing the area of Education for Sustainable Development (ESD) with focus on sustainable tourism and travel by investigating perceptions, attitudes and environmental knowledge in relation to environmental concern among young adults in Sweden and Germany, and how these values relate to their travel habits. The research topic of interest is mainly focused on travel habits on an individual level, and what challenges persist within ESD to bridge attitude- gaps.

Previous research has shown that young adults are well aware of the threats of climate change and the need to take personal action, but challenges often arise when translating awareness, attitudes and convictions for environmental causes into behaviour and meaningful pro-environmental actions. The analysis of a study showed that a part of young adults rather puts their trust in family or community to care for ecological practices (Piscitelli & D'Uggento, 2022). According to González-Rodríguez and Tussidayah (2021), inconsistencies in belief, attitudes and behaviour among consumers are often demonstrated under a specific pro-environmental action. One reason for these inconsistencies can be traced back to social dilemmas for the individuals to consume "green" (González-Rodríguez & Tussidayah, 2021; Gupta & Ogden, 2009) and unwillingness to pay more for "green products" despite awareness and environmental concern (Gupta & Ogden, 2009). This phenomenon highlights the complexities of translating environmental concern into sustainable travel habits. There is a need to explore whether ESD effectively influences young adults' travel behaviours or if barriers—such as convenience, social norms, or limited access to sustainable travel options—hinder pro-environmental decision-making.

Background

The role of ESD is to empower people with knowledge, skills, values, and behaviour that leads to decision making that benefits the environment, economy and society (UNESCO, n.d), and can work against issues such as climate change, biodiversity loss, inequality, loss of resources, and negative effects on the people's wellbeing and health (UNESCO, 2024). The way ESD is intended to be advocated is for teaching that is cognitive, socio-emotional and behavioural (UNESCO, 2024).

Both Sweden and Germany have a national plan for the implementation of ESD in the formal school curriculum (Government Offices of Sweden, 2021; BMBF, n.d). Germany's national plan of implementing ESD involves efforts in the early childhood education sector up to higher level education, in both formal and in-formal contexts (BMBF, n.d). Other stakeholders that have been described as “partner networks” to promote ESD in the German context are local authorities, media, and cultural education and cultural policy (BMBF, n.d). Sweden has also recognized ESD as a fundamental part of formal, informal, and non-formal education, with incorporation in all educational levels (Government Offices of Sweden, 2021).

Personal action taking and ESD is also closely interlinked to sustainable tourism. The United Nations tourism agency describes the key concept of sustainable tourism development as guidelines and management that: “...takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.” (UN Tourism, n.d). The United Nations (n.d) suggests tourism to be one of the fastest growing industries globally that is closely interlinked with economic, social and environmental wellbeing of many countries. Sustainable tourism on a policy level can be related to Agenda 2030 and the Sustainable Development Goal (SDG) 8: “*Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*” and has become an important contributor for reaching goal 8 (Rasoolimanesh et al., 2020).

Drawn from this information, the tourist sector is therefore considered to be an important function in society, whilst it can be argued to generate both positive and negative impacts on the environment and social or cultural constructs and traditions. From another perspective, the tourist sector itself is also vulnerable to negative environmental impacts, with a dire need to implement climate action that can strengthen the resilience in the tourism sector (UNWTO, n.d.b). Based on these insights, the purpose of progressing the area of ESD for sustainable tourism by looking further into how young adults relate to this topic in forms of perceptions, attitudes and behaviour, is considered important as they represent a key population group for the welfare of the future planet and citizens. The chosen topic for the Master thesis is considered to be of relevance for the sake of progressing ESD, since the purpose of ESD expands into a larger purpose that involves societal efforts in sustaining both the planet's resources and the well-being of future citizens (Pauw et al., 2015).

The framework for striving towards sustainable tourism is considered a useful tool to create jobs that promote local products and culture, as a part of the Agenda 2030 (United Nations, n.d). There are further examples of how they may be implemented in the Rio+20 document “The future we want” as promoting environmental awareness, protecting and conserving the environment, respecting wildlife, flora, biodiversity, and improving the welfare and livelihood of local communities (United Nations, n.d). Drawn from this information, reflections of how the tourist sector therefore fills an important function in society is enhanced, whilst it can be argued to generate both positive and negative impacts on the environment and social or cultural constructs and traditions. From that perspective, the tourist sector itself is also vulnerable to negative environmental impacts, with a dire need to implement climate action that can strengthen the resilience in tourism (UNWTO, n.d.b). The Glasgow Declaration highlights the increasing inequality issues that follow as consequences of climate change, that have the most impact on under-represented and vulnerable groups, such as women, indigenous communities, people with disabilities and small island states (One Planet Sustainability Tourism Program, 2021). Apart from inequality issues across borders or communities, issues such as gender inequality also occur within the tourist sector that is characterized by frequent job-rotation, seasonal and/or part-time employment, and precarious work contracts, according to a study by Araújo-Vila et al. (2021).

During the COP-26 UN Climate change conference, the Glasgow Declaration was launched, containing a coordinated plan for tourism development to support the global commitment of cutting emissions in half by 2030, and achieving net zero emissions by 2050 (UNWTO, n.d.b). The reason for this is the unsustainable dependence on fossil fuels, unsustainable land use, and consumer patterns that drive climate change, pollution and biodiversity loss (One Planet Sustainable Tourism Program, 2021). Tourism development in terms of expanding tourist infrastructure in specific regions or areas is a necessity for maintaining a tourist destination, but it puts the local ecosystem and environment at strains (Baloch et al., 2022). Some examples of the negative impacts the development and constructions have in the environment consists of reduction of green spaces, deforestation, solid waste and sewage, overutilization of air and water, and increased emissions of CO₂ and other gases (Baloch et al., 2022).

Aim of the Study

The aim of this study is to explore and interpret the perceptions, attitudes, and justifications behind travel behaviour among seven young adults in Sweden and Germany, within the context of sustainable tourism, and to examine how ESD is perceived to have influenced their travel attitudes and behaviours. This study will contribute to a deeper understanding of the relationship between ESD, environmental awareness, and behavioural change, and the findings are expected to offer insights into how formal and informal education interventions can be better designed to foster consistent pro-environmental travel behaviours among young adults. Three research questions have been formulated with the purpose of guiding the study process and to be answered after the data analysis.

RQ1: How do the interviewed young adults in Sweden and Germany perceive and reflect upon the inherent issues of travel from an environmental perspective?

RQ2: How do the interviewed young adults in Sweden and Germany reflect upon, and justify their behaviour in the context of sustainable travel?

RQ3: How do the interviewed young adults in Sweden and Germany perceive the relationship between their travel attitudes and habits, and their recollection of education and ESD?

Outline of the study

The outline of the study is structured with seven chapters, whereas the first chapter serves as an introduction to the research topic and the relevance for ESD. The second chapter is an overview of previous literature that aims to summarize and find gaps in the research. This is followed by a theoretical framework in chapter three that describes the intention of combining the cognitive focused Theory of Reasoned Action (TRA) and Critical theory (CT) for this study. Chapter four presents the methodology of the research study that describes the design of data collection, participants sampling, and method of analysis that involves the use of the theoretical framework along with ethical aspects and estimated quality of the study design. This is followed by chapter five where the results of data analysis are presented. The thesis then continues in chapter six with a discussion of the results in relation to previous research and the three research questions. Lastly in chapter seven, a conclusion of the whole thesis is presented with a recommendation to future academic progress and practical implementation.

Literature review

This chapter presents an overview of previous research and peer reviewed scientific literature that are related to the chosen study topic. The purpose of the literature review is to take account of already published scientific literature that is important for this study and justify the need to further research in this specific area of ESD by investigating potential gaps. The review will be mapping out concepts of pro-environmental behaviour, sustainable travel, young adults' attitudes, and the role of ESD to foster sustainable travel habits. Before the review could start, it was necessary to consider the age span of the scientific research that was read, evaluated and presented. The understanding of the term "young adult" can be rather fluid, and there are several different age spans in academic literature that can cause confusion when evaluating research. The term "young adult" generally refers to individuals over the age of 18, ranging up to 26 years of age, and sometimes even up to 29 years old (Community Commons, n.d). The term "young adults" for this study will be defined to people in the age span 18 to 30 years of age. For the sake of being able to include scientific literature that is deemed valuable for this literature review, studies where the age is slightly lower or higher than the set definition will also be included, as long as the age group 18 to 30 years old is also included in the same study.

Concepts of meaningful behaviour change

This part of the literature review is intended to account for scientific literature that explains the psychological process behind how meaningful behaviour change can be facilitated, and what factors may prevent it. By understanding more about behaviour change, it nourishes the aim of this study where one core aspect is to investigate attitude-behaviour dissonance.

Meaningful behaviour change

There are several perspectives to account for when discussing what factors lead to an actual, meaningful behaviour change on an individual level, for the sake of understanding how behaviour change can be a challenging task for individuals. It is relevant to address the aspect of motivation for starters, as it is an essential aspect of any behaviour change that can be both

intrinsic and extrinsic (Flannery, 2017). The Self-Determination Theory (SDT) of motivation was developed by the two psychologists Edward L. Deci and Richard M. Ryan at the University of Rochester, and the underlying tenant to SDT is a psychological well-being that relates to three basic psychological needs—autonomy, competence, and relatedness (Flannery, 2017). These components belong to a sub theory of SDT, which is the Cognitive Evaluation Theory (CET) that aims to explain these components as basics to intrinsic motivation through social and environmental factors (Ryan & Deci, 2000). When these three components are facilitated by a social construct, the person is more likely to engage in intrinsically motivated behaviours, and is quite likely considered to be self-motivated, according to Flannery (2017). Autonomy represents the need to be in charge of one’s own life, competence is a facilitating factor for intrinsic motivation by being successfully able to engage in a behaviour, and relatedness is explained as a need to have close relationships and security (Flannery, 2017). Much of people’s behaviour cannot be explained by intrinsic motivation only, but rather from extrinsic motivation which refers to the performance of an activity to achieve a separate outcome, which may be driven by for example fear of punishment or personal feelings of shame or pride (Ryan & Deci, 2000). This does not equal a weaker level of autonomy but rather focuses on a person’s ability to value outcomes that might be of benefit later (Ryan & Deci, 2000).

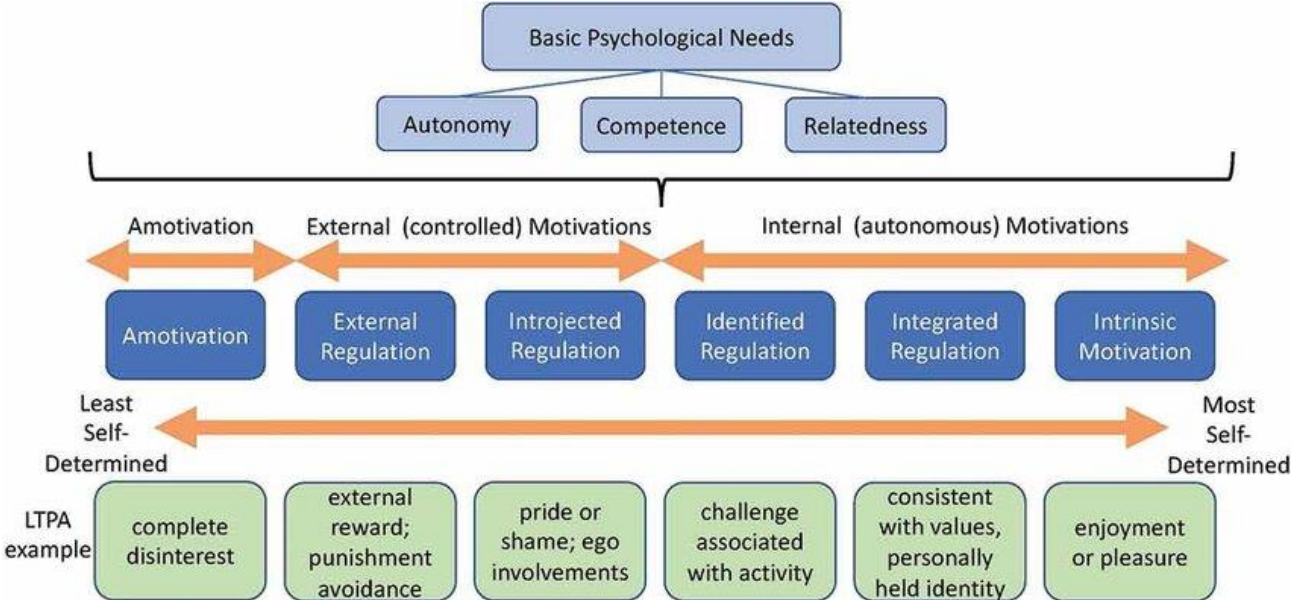


Figure 1. Self-Determination Theory (SDT) model, (Olsen et al., 2022).

Another facilitating factor for behaviour change is *intended behaviour*, and the Theory of Planned Behaviour (TPB), suggests that behaviour is driven by behavioural intentions, which are influenced by attitudes toward the behaviour, subjective norms, and the perceived behavioural control of an individual (Ajzen, 1991). This theory is an extension of TRA that was lacking tangible observations over behaviours which people have volitional control (Ajzen, 1991). It was highlighted by Ajzen (1991) that the performance of most behaviours depends to a certain degree on non- motivational factors as availability of requisite opportunities and resources, e.g., time, money, skills, and cooperation of others. Overall, these factors represent individuals' control over the behaviour, and to the extent that a person has the required opportunities and resources and intention to perform the behaviour, it should be possible to do so (Ajzen, 1991). *Perceived behavioural control* is a key factor to TPB, and the importance of actual behavioural control indicates that resources and opportunities available to a person shall to a certain extent dictate the likelihood of behavioural achievement (Ajzen, 1991).

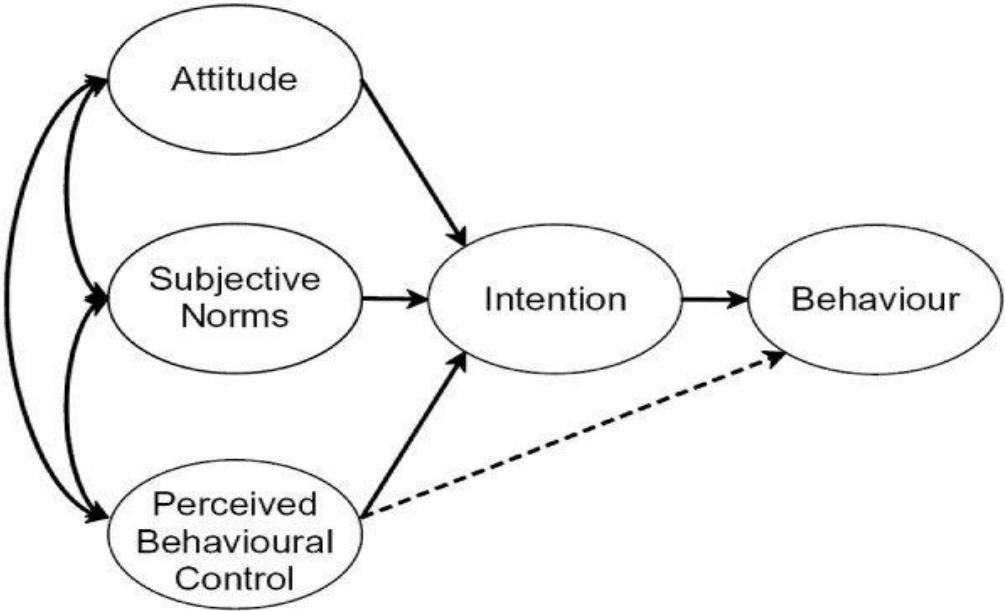


Figure 2. Pathway of the TPB. (Ajzen, 1991, p. 182)

Social norms

Social norms have been identified as one crucial key element of many interventions for behaviour change that seeks a sustained and motivated behaviour change, and social norms are argued to be one of the most valuable theoretical constructs within the social sciences (Reynolds et al., 2015). The term “norm” has more than one meaning, but a general description is to understand the societal expectations have an impact on behaviour, and these are originating from traditions, institutions, customs and habits that transfer to social norms (Reynolds et al., 2015). Cultural socialisation processes within societies and communities are seen as largely homogenous and that there is a moral consensus to live by. Individuals generally tend to look how “most others” behave and use such observations to measure how far their own behaviour are aligned with or deviates from what others typically do (Reynolds et al., 2015). It should also be recognised that people occupy different social positions and belong to different groups and hierarchies, and do not necessarily agree with other groups on what is an appropriate behaviour (Reynolds et al., 2015). Another study by Terry & Hogg (1996) brings up the notion of the insufficient effect that attitude alone has on changing persons behaviour and highlights the functions of subjective norms as being an equal strong predictor to a person’s behaviour change, drawn from TRA developed by Fishbein & Ajzen in 1975 and their work on behavioural intentions (Terry & Hogg, 1996).

Young adults’ attitudes toward climate change and sustainability

The following sections of the literature review aims to present scientific literature about the subject of this thesis that relates to attitudes and environmental among young adults on a global level, possible barriers for sustainable travel, and the role of education in fostering sustainable travel habits. The selection criteria for collecting and evaluating such information was restricted to peer reviewed articles published after the year 2000 with no specific geographical restrictions, for the sake of accounting for relevant types of studies.

Attitudes and environmental concern

Research has shown that young adults in Europe exhibit either comparable and or sometimes higher levels of concern about climate change than other age groups (Corner et al., 2015). Still, there are variations between countries in regard to reported environmental concern. A high share of young adults in UK recognizes climate change as an event happening *now*, whilst other data suggest they still believe it to take place far away, which reflects a trend of psychological distancing (Corner et al., 2015). Further on, the study by Corner et al. (2015) reported that teenagers and young adults aged 16 to 24 in the UK lacked concern about climate change and blamed any disengagement on lack of low-carbon infrastructure, poor quality media coverage, and absence of shared values and practices. However, studies in Germany, Austria and Switzerland reported a much higher environmental concern where 76 % of respondents perceived climate change as a very or fairly big problem (Corner et al., 2015).

The young generation is a key stakeholder group when it comes to sustainable living and practice for the future, so Hume (2009) referring to Bentley et al. (2004), and scientific research could highlight their increasing awareness and concern for climate change and sustainability issues. More specifically, research shows climate anxiety and eco-anxiety is widespread, and an article by Hickman et al. (2021) points to an increasing awareness of the threats that a warming planet has. The article aimed to investigate the feelings of children and young adults age 16 to 25 all over the world, where findings could determine that many young adults are moderately worried (84 %) or very and extremely worried (59 %) (Hickman et al., 2021). Another important finding from the study could reveal a profound feeling of inadequate governmental response, and 83 % think that people have failed to take care of the planet (Hickman et al., 2021).

Barriers to sustainable travel choices (social, economic, and psychological)

Although the young generation is often portrayed as a group in society with willingness to consume “green” and accepting of new innovations, they are simultaneously a strong consumer group when compared to previous generations in terms of disposable income (Kanchanapibul, 2014). Not only do they possess the ability to comprehend the importance of why to live “greener”, they are a more conscious generation socially and culturally as well compared to other generations (Kanchanapibul, 2014). Despite the willingness to engage in sustainable

travel practices, economic barriers are a strong indicator for how this population group struggles to translate this into actual practice. A study by Holmes et al. (2019) was discussing the concept of what a “green traveller” can potentially be and refers to the studies of (Juvan & Dolnicar, 2016; Buffa, 2015; Ramchurjee & Suresha, 2015; Shamsub & Lebel, 2012; Miller, G. et al., 2010; and Shamsub & Lebel, 2012). Their research dealt with ecologically concerned consumers and the relationship between socioeconomic and personality characteristics (Holmes et al, 2019). The findings could indicate that distinctive socioeconomic profiles were a prerequisite for consumers to engage in sustainable travel (Holmes et al., 2019). The commitment to sustainable travel could be directly interlinked to a higher disposable income and education level (Holmes et al., 2019).

Whilst young adults portray knowledge, worries and concern about environmental degradation and climate change (Hickman et al. 2021), and willingness to engage in environmentally friendly habits (Popsa, 2024), other research points to restraints in sustainability practices and behaviour. A study by Oinonen & Paloniemi (2023) highlights that personal practices are often only of environmental character that evolves around reducing one’s carbon footprint. In reality, sustainability issues and challenges are hardly ever reduced to the environment but are also intertwined with socio-cultural aspects (Oinonen & Paloniemi, 2023). Further on, there are differences to how young adults carry out certain behaviours in comparison to adults, and when talking about everyday actions of sustainability, where adults often take action individually, but young adults as a collective force (Oinonen & Paloniemi, 2023).

From an optimistic standpoint, it could enhance the meaningfulness and the enhancement of agency by young adults, but they are at the same time restricted by lack of competence, knowledge, willingness and self-efficacy to take place politically where adults are dominating (Oinonen & Paloniemi, 2023). This might suggest social barriers in engaging politically for sustainability as a whole and restrain young adults on an individual level in terms of personal action. As mentioned in the introduction chapter, previous research points to social dilemmas as a barrier for individuals to “consume green” (González-Rodríguez & Tussidayah, 2021; Gupta & Ogden, 2009).

A research study showed that Gen Z (people born between 1997 and 2012) portray different travel behaviours as previous generations that are influenced by aspects of social media, new technologies and access to information about destinations, and desire to have a unique

experience (Popsa, 2024). The willingness among Gen Z to choose eco-friendly travel options is relatively high, and 56 % believe that to be of importance when traveling (Popsa, 2024). Another study by Holmes et al. (2019) highlights the commonly occurring attitude-behaviour gap and refers to Miller et al. (2015) who points to the difficulty for tourists to translate their attitude into sustainable travel behaviour, no matter how environmentally concerned they might be. Oinonen & Paloniemi (2023) indicated in their study that difficulties persist in the dimensions of *why* these gaps in attitude and behaviour are inconsistent.

Role of education and ESD in fostering sustainable attitude and travel habits

Drawn from the insights from global policies about the increasing global impact the tourist sector poses in regard to the three pillars of sustainability (environmental, social and economic), the need for development and advancement for sustainable tourism has gotten bigger, and attention has been brought towards the role of education. Boluk et al. (2019) advocated for education, and especially how implementation of more engagement with critical thinking can facilitate SD and the SDG's overall. Critical thinking can also play an important role for emancipatory education, that seeks to empower the learner with tools to challenge the structures of society (Freire, [1970] 2001), and multilateral directives and initiatives (Boluk et al., 2019). When relating this to sustainable tourism and travel, it can be a useful emancipatory tool to deeper explore dynamics of power, privilege, hegemony, and hierarchical structures (Boluk et al., 2019).

Education can play a significant role in shaping sustainable travel habits, and a research study showed that reliable information on the level of sustainability in tourist destinations can positively influence and strengthen conscious and pro-sustainable travel behaviour (Gomes & Lopez, 2023). There is a general consensus amongst politicians, educators and leading NGOs that a functioning education system fosters a positive attitude for SD (Andersson et al., 2013). When it comes to the role of fostering sustainable attitudes, the relationship between ESD and positive attitudes are strong (Vare & Scott, 2007), but problems occur when individuals are encouraged to translate these attitudes into sustainable behaviour. This psychological problem is well known, and Vare & Scott (2007) identifies an inherent difficulty for people to change their behaviours, even when there is a rational call to do so.

Drawn from the scientific literature presented, the question of *why* there are inconsistencies between attitude and action among young adults has become more enhanced, and there are questions circulating the otherwise well aware target population. There is still information needed to assist the process of explaining and connecting findings to how young adults rationalize their own behaviour in terms of justification. How do young adults reflect over why attitude-behaviour gaps and inconsistencies occur? Exploring these sustainability-related travel attitudes also offers an opportunity to deepen the understanding of how Education for Sustainable Development is interconnected with this phenomenon. Scientific research specifically examining the role of ESD in shaping sustainable travel behaviour remains limited, highlighting a clear gap in the literature and providing a strong rationale for conducting this study.

Theoretical framework

Two theoretical frameworks have been selected for this research study due to their fitting alignment with perspectives on education for sustainable development: Critical theory (CT) and the Theory of Reasoned Action (TRA). The intention of combining these two theories is motivated by both the need of a behaviour centred theory to guide and sustain the aim of the research study that is focused on understanding a certain behaviour and attitude among the study population, the way they reason about their reported behaviour, and how they perceive their level of education and ESD to have played a role in shaping these attitudes. It can be argued that the two chosen theoretical frameworks possess quite different aspects of understanding human behaviour for example, and for this sake does not serve as to support each other, but it is rather believed they can give a richer interpretation of the data material collection from various perspectives in this study.

Critical theory

Incorporating CT as a framework serves to address the study's aim of understanding how the study population are able to evaluate their own attitudes and behaviour, but also how their level of education or ESD might have shaped their minds to think about their world in terms of a critical consciousness and abilities to question power structures and injustices. CT is best understood as a rather fluid worldview, rather than a sole method for research (Depoy & Gitlin, 2015), but it will for the study purpose rather be used as a lens to look upon the gathered data. The theory originates from the 1920's, and it is still debated as to whether it is a political, philosophical, or a sociological school of thought (Depoy & Gitlin, 2015). It can be described as a set of strategies with sociopolitical purposes where critical theorists seek to understand and learn about how human experiences and social justice can be used to promote local change through global social change (Depoy & Gitlin, 2015). According to Ryoo & McLaren (2010), one of the core understandings of CT is rooted in historicizing, critiquing and exposing the relations of domination and subordination.

When connecting Critical theory to ESD, a key concept is to relate the social- and cultural pillar of sustainable development, and connections concern the underlying quest of CT to transform society with more tools to combat injustice, sexism, racism and so forth (McLaren, 2015). The role that schools and education plays in the development of the political and cultural life of individuals has been identified as a central function, according to McLaren (2015), that also highlights the same aspect as a major task within education with need for development.

This pairs well with the study aim of this research study that seeks to understand how aware young adults are of their environmental behaviour, but also to reflect critically upon them and their meaning on a personal level and how they might be of consequence to others. It also resonates well with how Boluk et al. (2019) emphasizes the relationship between critical thinking and meaningful SD and progress of the SDG's. CT is about changing an unjust system, and McLaren (2015, p. 131) states that "...men and women are essentially unfree and inhabit a world rife with contradictions and asymmetries of power and privilege". This notion further connects the theory to highlighted issues of ecological and social vulnerability within sustainable tourism that is central for the study. More specifically, the use of CT for the purpose of investigating the attitude-behaviour gap within the area of young adults' travel habits can be focused on the participants in this study views and reflects over the structures and dynamics in society that might be partially responsible for shaping these kinds of behaviours.

When applying CT as a lens on the issue, it could be a possible door opener to understanding and interpreting why young adults justify their actions in certain ways, and how societal structures might have played a role in doing so. In the regard of how young adults justify their actions, looking into these structures could be supported or challenged by the remarks of Depoy & Gitlin (2015), who suggests that critical theorists seek to understand human behaviour.

One central figure for laying the foundation for CT is Paulo Freire who opposed the banking educational concept of learners as being mere receivers of information passed on from educators and instead believed that learning should be a process of dialog, which must be the foundation for pedagogy (Freire, [1970] 2001). Moreover, education should be a practice for freedom and liberation from capitalism, and protection of the common man, "the oppressed", which according to Giroux (2010) is at the core of Freire's idea of critical pedagogy. There are several key functions to CT, but this thesis will focus on incorporating *critical consciousness* during the process of analysing the collected data material, which represents the abilities of

students to be self-reflective over values they encounter in education (Giroux, 2010). The purpose of incorporating this key function of CT in this study is to understand to what level the participants are able to be self-reflective in their ways of justifying behaviour, and if how they position themselves in terms of responsibility or opposing the capitalistic structures that can be reflected back on themselves as individual consumers. Are they for example ready to question themselves, and more importantly, are they able to critically recognize and discuss faults and barriers within the structures of the societal hierarchy that want to protect capitalistic interests? For this purpose, it can be valuable to account for this perspective when analysing the answers from this thesis sample and draw parallels back to the level of education that the participants have and discover certain aspects of education that seem important in shaping critical minds of young adults.

Theory of Reasoned Action

One of the core aspects of the behaviour centred TRA is explained by LaCaille (2013) as a cognitive theory with a conceptual framework of understanding human behaviour. The intention to engage in a specific behaviour is considered as the best predictor to estimate if a person will actually engage in a behaviour or not (LaCaille, 2013; Hale et al., 2002), and intentions are assumed to capture the motivational factors that are likely to influence a behaviour (Ajzen, 1991). Further on, they are indications of how hard individuals are willing to try, and of how much of an effort they are planning to incorporate for the sake of performing the behaviour (Ajzen, 1991). Intentions of behaviour are further on predicted by attitudes and subjective norms and the belief in the outcome of the behaviour (LaCaille, 2013; Sheppard et al., 1988). Subjective norms (and normative beliefs) contribute to a person's perception of social pressure and motivation to comply with others, which will amplify the intention (LaCaille, 2013). Intentional behaviour is a product of a person's attitude towards a certain behaviour and the subjective norms related to the behaviour, so (Hale et al., 2002). A subjective norm is explained by Hale et al. (2002) as a normative belief and a person's motivation to comply with the normative belief, which is the understood expectation of other significant people or peers regarding the importance of a specific volitional behaviour.

The intention of using TRA is motivated by the study aim of looking into and understanding why and how the population sample is experiencing, reasoning and behaving in a certain way. That could from a wider perspective possibly be valuable when progressing the area of sustainable tourism in relation to ESD if it can be understood how a particular group in society tends to perceive and process information about pro-environmental knowledge and attitudes, and how they believe that these shape their (intended) behaviours. The use of the theory in relation to the study topic of sustainable travel habits is to engage the study participants in reflective thinking and possibly even self-critical thought where they are given the opportunity to justify their behaviour from intention to execution. The practical application of this theory is to shape the groundwork for the interviews in terms of what questions are being asked for the purpose of targeted data collection, as well as a lens through which the gathered data can be analysed.

Method

Research design

The design for this research study took a qualitative approach using semi-structured interviews from a sample of seven participants who were interviewed during online meetings or in person. Three research questions were formulated to guide the process of the study. The analysis of data was conducted using a thematic analysis with a deductive approach that lets themes emerge from the material by using theories as lenses to look upon and interpret the data, using the publication of Braun and Clarke (2006) as guidance. A thematic analysis seeks to code and find recurring themes and similarities in the material, and the process was guided by a six step manual of Braun & Clarke using the following steps: (1) *Familiarize yourself with the data*, (2) *Generating initial codes*, (3) *Searching for themes*, (4) *Reviewing themes*, (5) *Defining and naming themes* and (6) *Producing the report*. Using a deductive approach, the researcher primarily adopts a theory-driven perspective when examining and interpreting the qualitative data. The process of generating codes and themes is guided by the research questions, aligning with the framework suggested by Braun and Clarke (2006). This approach was considered appropriate for the study's aim to deepen the understanding of the identified phenomena through the collected data. The foundation for the thesis outlined using the two theories TRA and CT as academic lens to guide the study and answer the stated research questions and give more in-depth interpretation of the findings that related to psychological factors and possible explanations of behaviour and attitude that can be supported by previous research. The complete analysis is presented in a table chart located in Chapter Five, where the identified themes and subthemes are also visualized in Figure 5.

Ethical considerations

The study design itself was created and followed through with respect to the guidelines from Vetenskapsrådet (2024) of how to conduct ethical research. As the research design aimed to collect personal demographical information (See Table 1) that would be processed, stored and analysed, there were ethical considerations to take adherence to. The data collection process, as well as data protection was conducted after the standard principles of the *General Data Protection Regulation* (GDPR, 2024). The GDPR (2024) basic guidelines were aimed at *Principles relating to process of personal data*, as well as *Rights of the data subject*, meaning:

- Following lawfulness of processing
- Following conditions of consent
- Transparent information, communication and modalities for the exercise of the rights of the data subject
- Material will be processed in a manner that ensures appropriate security of the personal data
- Data will be kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed
- Right of access by the data subject
- Right of rectification by the data subject

The participants of the study were invited via email along with an invitation letter and formal consent letter (See Appendices 1 and 2), where they were given the opportunity to inform themselves of the purpose of the study, how their data was processed and their right to withdraw consent. The participants had the option of terminating the interview at any time, and the right of not answering certain questions without being asked to state a reason. In collaboration with the supervisor, questions for the interview were formed in a way with the intentions of not putting unnecessary harm or strains on the participants.

Sample

The sample for this thesis comprised seven participants that were selected for data collection using convenience sampling of individuals through networks (work, social circles, and the current university course). The participation and collection of material were conducted using semi-structured interviews that were conducted through both online meetings, as well as in person. The age span of the sample was between 26 and 30 years old, both males and females living in Germany and Sweden. The participation criteria for the study sought participants that were in the age of 25 to 30, with a minimum of completed high school degree. The requested personal information from the participants that would match the criteria was age, gender, place of birth and residence, and level of education.

Participant No.	Gender	Age	Level of education	Place of residence
P1	Male	29	Master's degree	Berlin, Germany
P2	Male	29	Bachelor's degree	Berlin, Germany
P3	Female	30	High school degree	Berlin, Germany
P4	Female	28	Master's degree	Berlin, Germany
P5	Female	26	Master's student	Gothenburg, Sweden
P6	Female	28	High school degree	Torsby, Sweden
P7	Female	28	Bachelor of Arts, Bachelor of education, Teacher programme (ongoing)	Berlin, Germany

Table 1: *Information about participants*

Data collection

The data was collected in person or online using the digital meeting programme Zoom, and audio was recorded throughout the interview that were later stored and transcribed using an online software. Five of the interviews took place in Berlin during personal meetings, and the two interviews with the Swedish participants were conducted online. Using semi-structured interviews as a method of data collection was evaluated as a fitting choice for the Master's thesis due to its versatility and flexibility for qualitative study designs, and the possibilities of capturing entities like self-perception, values, opinions, and behaviour (Bryman, 2016). The interviews took place in the months of March and April 2025, and the length of the interview ranged between 21 and 27 minutes. The interviews had a high response rate since all participants gave answers to each question, both to the questions that retrieved personal information, as well as all questions from the interview guide. All interviews were conducted in English for the sake of heterogeneous transcribing and cancelling out or minimizing

translation errors. English was not the mother language of any of the participants, nor the researcher. This could also be considered a limitation of the study, as it might have been a restriction to the participants because they were asked to formulate their answers in a second language. Before starting the interviews, the participants were again reminded of their rights and asked to sign the consent form.

The semi-structured interview was conducted by starting with three personal questions about age, sex and place of birth and residency (See Table 1), following with a set of prepared questions that were categorized into four sections: (1) *Travel habits and behaviours*, (2) *Perceptions, thoughts and feelings about travel*, (3) *Reflections/relations on travel choices and sustainability* and (4) *Influence of education and information on sustainable travel*. The four stages were made into an interview guide with questions to support the process of the interview, and the prepared questions can be found in Appendix 3. The purpose of the interview guide was to facilitate the process of asking questions and keeping all the interviews within a similar frame with adherence to Bryman (2018) and the recommendations for conducting semi-structured interviews.

Data material

The interviews in person were recorded by audio and transcribed with the software program Tactiq. Only two interviews were conducted online over Zoom, and only audio was recorded during these two sessions. The process of the online interviews was done in adherence to the advice from McMullin (2023), who highlights the ethical aspects of approaching modern transcribing practices with a critical lens that includes aspects of safe data storage in accordance with GDPR guidelines and what electronic device is being used.

Data analysis

The chosen method of data analysis of the transcribed interviews was a thematic analysis characterized by Braun & Clarke (2006), which is a well-known and common approach to analyse qualitative data. A thematic analysis seeks to identify, analyse, and find patterns (or themes) in data sets with a flexible approach and minimizing findings into comprehensible

themes (Braun & Clarke, 2006). For the purpose of analysing and synthesizing the data, the six-step guide was used to give a full understanding of the transcribed material. These steps are: (1) *Familiarize yourself with the data*, (2) *Generating initial codes*, (3) *Searching for themes*, (3) *Reviewing themes*, (5) *Defining and naming themes* and (6) *Producing the report* (Braun & Clarke, 2006). The transcribed interviews were organized digitally and familiarized by colour coding the initial codes that would later emerge as themes and subthemes.

Validity and reliability

When considering qualitative methods within research, the possibilities of encountering risks that might negatively be impacting the reported results must be accounted for. In qualitative research, the researcher is quite often one of the most important sources of error that can impact validity and reliability of the study, so (Brink, 1993). For example, the answers obtained from the interviews in study could have been endangered should the researcher fail to provide a safe environment for the participants to give honest answers to the questions, or not formulating questions that give the most valuable answers. Validity of a study represents the accuracy and truthfulness of the scientific findings that are measured with methods that correspond with what it intends to measure, and reliability is concerned with the consistency, stability and repeatability of the study to yield the same results in repeated studies (Brink, 1993). These are components that improve the quality of the study, as well as the credibility. In order to be better prepared for the role as a researcher and interviewer, preparations were made by putting the guide for conducting qualitative research of McGrath et al. (2019) to work to assure that potential errors were kept to a minimum. This guide included tips of how the researcher can identify when the need for qualitative data is appropriate, construct an interview guide and allowing for changes, considering cultural and power dimensions of the interview situation, and remember the position of being a co-creator of data (McGrath et al., 2019). For this particular study, it must be acknowledged that the chosen method of data collection cannot capture all relevant data or explaining the specific cause of behaviour.

Limitations of the study

Several limitations were identified during the planning and execution of this study. First, the qualitative interview method, while valuable for exploring participants' perceptions and self-reported attitudes, does not allow for claims about their actual behaviours. Therefore, the findings should be interpreted as insights into how participants reflect on their travel choices, rather than as objective accounts of their actions.

In terms of sampling, the small number of participants ($n=7$) limits the scope of the findings. The sample was unevenly distributed between the two countries, with five participants residing in Germany and only two in Sweden. This imbalance, along with the overall limited sample size, means that no claims can be made about the broader populations of either country. The intention was not to generalize, but rather to explore individual perspectives within a specific context. Additionally, the location of participants may have influenced their responses. For example, those living in Berlin may have access to different infrastructure (such as more extensive public transportation) and social environments than individuals in smaller Swedish towns. This urban-rural difference could affect their attitudes toward sustainable travel. However, since the study was not designed to compare specific regions within countries, such contextual differences could not be fully explored or accounted for.

A more focused sample — for example, comparing participants within the same national context or within similarly sized urban areas — may have yielded more coherent insights for practical implementation. Future research could benefit from such a design to better examine how local infrastructure and context shape sustainable travel attitudes. As previously stated, the interviews were conducted in English, which was not the mother language of either the participants or the researcher. Citizens from Germany and Sweden speak English generally well, and even though no participant really struggled to communicate their thoughts during the interviews, it can still be perceived as a limitation to the study because conversation in their mother language might have generated more in-depth answers. It is likely that the choice of theories influenced the outcome of the thematic analysis, and considering the use of other behaviour theories could have resulted in highlighting different aspects of psychological- and behaviour related aspects of the data material. For example, the Theory of Planned Behaviour (TPB) of Ajzen (1991) (that is designed to predict and explain human behaviour in specific contexts) might have given insights into the psychological process of how young adults plan

their travels as they are not solely the result of impulsive decisions. It can also be argued that the combination of two cognitive theories would have had complementary effects and given more rich explanations to the answers reported by the participants in this study. Lastly, no test-interview were conducted prior to the interview with first participant due to a tight time schedule between the completion of the interview guide and the meeting with the first participant. According to Bryman (2018), this would have been advantageous for the data collection method in order to get an idea of what questions might be perceived as difficult to understand, fall out of the scope of what is needed to know, or just not give interesting or relevant information.

Findings

In this chapter, the key findings from the thematic analysis are presented and discussed in relation to the study’s three research questions. The analysis aims to uncover how the interviewed young adults in Germany and Sweden perceive and navigate the complexity of sustainable travel and how they justify their actions regarding the perceived influence of environmental awareness and formal or informal education. The structure of the analysis was guided by a deductive approach, using the two theories TRA and CT in the process of coding the material and extract themes and subthemes. These served as analytical lenses to interpret the perspectives and thoughts of the participants in order to discover more in-depth understandings of beliefs, values, and social norms that might give insights to how they intersect with broader structures and ideological influences like education and environmental discourse. This process was structured with the aim of connecting empirical findings with wider conceptual discussions relevant to the research field. A total of five themes were extracted from the interview material.

Themes from the analysis

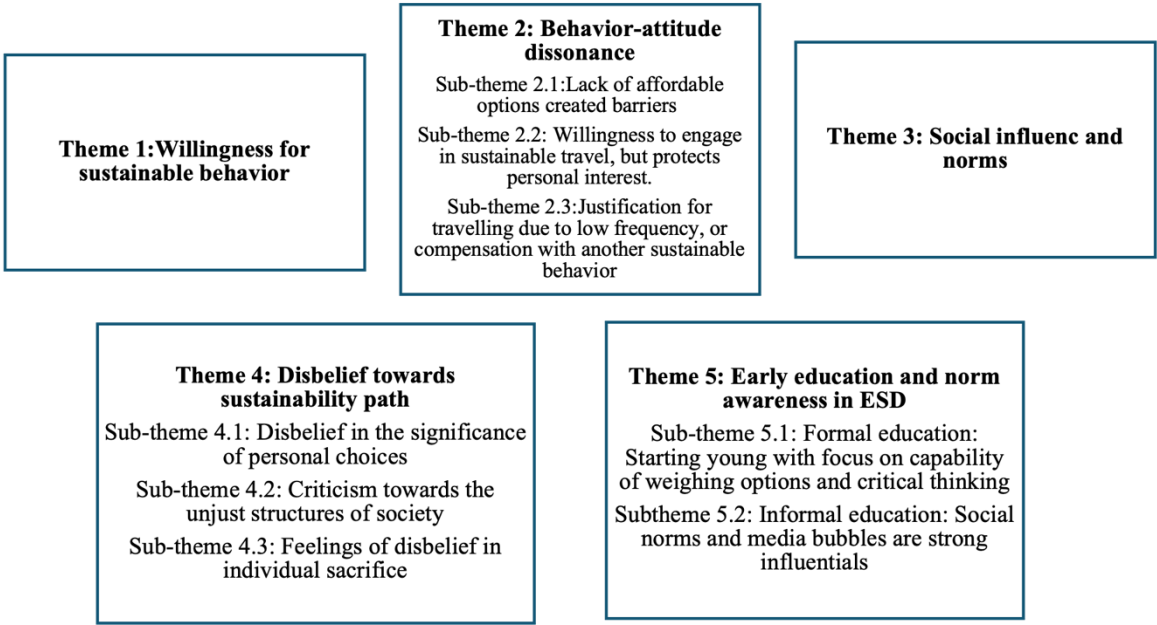


Figure 3. Visualisation of themes and sub-themes.

Table 2. Full analysis of the interviews and categorisation of themes and sub-themes.

Theme	Subtheme	Textual reference
<p>1. Willingness for sustainable behaviour</p>	<p>No sub-theme</p>	<p>But you know, it's a bit of a trade-off now when you think about environmental sustainability that you want to cut that back a bit, right? To not have such a big impact on the environment. But then still I'm very used to it, and I love to exchange with new people and learn about new cultures and stuff. Now a bit difficult to balance that maybe. (P1)</p> <p>But if it's then also super expensive, then it just doesn't make any sense for me at least. So, um, for me, I would say in the last couple of years it got more to a point where I just took like one- or two-hour flights to get somewhere just 'cause it was quick and cheaper, unfortunately. So that's something that's not very sustainable. (P2)</p> <p>When I drive home to my hometown, I only take the train because it's very easy and the route is very good so I don't have to move trains so it's easy and it doesn't take a lot of time for me because going by car would be longer and would take more time for me. So using the train is the best option for when I drive home and for vacation. (P4)</p> <p>But in general, I think it's okay and it's an easy way to travel if everything works with the Deutsche Bahn. But when taking the flights, I would say costs are a very big barrier because if it's too expensive, I would not consider going on that vacation because I check the prices before and then see if it's too expensive. (P4)</p> <p>“Well, I try to take the public transportations. But I also do have a car, and I do love to take my car. But I try to actually go by train to work or to meet friends or walking”. (P3)</p> <p>“So yeah, think about it, but it's not as important to me. So, I don't think about it anymore.” (P3)</p> <p>“I often go by plane. It's often cheaper to fly. And then you fly. And then you get there faster too.” (P6)</p> <p>“I would definitely like to travel more by train, but it is not sustainable financially and in terms of time.” (P6)</p>
		<p>I think that was a huge that was very frustrating for me yeah and I still did it always but I also thought a lot of times like how can it be I pay so much for the train yeah and then it never was punctual or just yeah I mean in Germany in general it's pretty bad yeah it's a well-known problem that the trains don't work so good here. (P1)</p> <p>But I also, for instance, once borrowed a car from a friend then to do this travel. But that was mainly because I had to carry some stuff with me. That was not possible on the train. There are not enough other options to choose then, I would say. Even though the train is bad, in the end it's still the best. (P1)</p>

<p>2. Behaviour-attitude dissonance</p>	<p>2.1. Lack of affordable options created barriers</p>	<p>So usually, I have to take a plane for even not that far of a destination, but, um, since it's usually cheaper I take the plane. Yeah. But I would like to travel more by train actually, if possible. 'cause I just like to take the train.”(P2)</p> <p>But in general, I think it's okay and it's an easy way to travel if everything works with the Deutsche Bahn. But when taking the flights, I would say costs are a very big barrier because if it's too expensive, I would not consider going on that vacation. (P4).</p> <p>Yeah, I think the cost factor is a very huge part of decision making. So when it's too expensive, I would avoid it at all to travel. Yeah. When taking the train, I have the luxury of having a Bahncard. A Bahncard in Germany is (...) when you get discounts on certain train rides. Okay. So that makes my choice easier. (P4)</p> <p>But when taking the flights, I would say costs are a very big barrier because if it's too expensive, I would not consider going on that vacation because I check the prices before and then see if it's too expensive. (P5)</p> <p>“I often go by price. It's often cheaper to fly. And then you fly. And then you get there faster too.” (P6)</p> <p>“I would definitely like to travel more by train, but not sustainable financially and in terms of time when you start from Torsby.” (P6)</p>
	<p>2.2. Willingness to engage in sustainable travel but protects personal interest.</p>	<p>I think it also changed a bit, meanwhile. And I think nowadays I try to also think about environment, like environmental sustainability. Yeah, and also try to avoid maybe flights that are unnecessary. And I think now I try to choose my location more in closer proximity. (P1)</p> <p>I would like to travel more by train, so I like to travel by train. Yeah. But, uh, it's just too expensive. So usually, I have to take a plane for even not that far of a destination, but, um, since it's usually cheaper I take the plane. (P2)</p> <p>“(…) so using the train is the best option for when I drive home and for vacation, I think most of the times I use flights because often when I go on vacation I travel like not within Europe”. (P4)</p> <p>“I mean, I would never fly within Sweden due to the environmental factors and that it's so unsustainable. I would not fly within Sweden. I would never fly to Denmark, Norway, anywhere close.” (P5)</p>

	<p>2.3. Justification for travelling due to low frequency, or compensation with another sustainable behaviour</p>	<p>Airplanes in general are not that sustainable. I don't do it more than once a year as a rule. So, it's definitely sustainable compared to many others. But it's clear that you should be able to choose not to go by airplane at all, of course. (P6)</p> <p>(...) by not traveling once a year to a bigger vacation and therefore I'm just ignoring the fact that flying is not that good for our environment. But I try to have a look during my normal day like, I'm getting groceries, not using this much plastic and eating more vegetables, try to reduce the meat consumption and stuff like this. That's the point where I care about the emissions and my environment. And then travel is separated from it. (P7)</p> <p>I mean, all travels are like, especially if you go far away and if you travel by plane, of course, it's problematic. I mean, I've been thinking a lot about this, like the feeling that you deserve to travel. Um it's very like that comes from somewhere like from a social uh from culture I guess but it's uh it's something we take for granted and I think that's problematic in itself. (P5).</p> <p>I mean, I think I just got to a point where I thought that I also want to experience kind of the world or a bit at least a part of it. And I didn't want to like cut down so much that I don't go anywhere 'cause of the environment. I don't know, I got a bit nihilistic about some stuff. (P2)</p>
<p>3.Social influence and norms</p>	<p>No sub-theme</p>	<p>I think taking sides is not the most sustainable way to travel. Um but since I don't own a car and use public transport a lot in my mind, I'm like balancing it out a little bit with that so that's my um yeah maybe my personal thought on it to maybe justify it a little bit for me. (P4)</p> <p>I think a lot of young adults are very conscious about sustainability right now in our generation, which is quite good. It's like reflecting in all of the Fridays for Future movements. But in general, maybe, I think as always, education is a huge part so just like reading about it and educating yourself and being like self-aware with the choices you make and maybe talking to others about it. (P4)</p> <p>"My parents, I think, really tried to make better decisions based on, well, sustainability, and I also feel like they have had a lot of changes." (P5)</p> <p>I have some influencers who are showing to go to nice places by train. And maybe this would be an aspect to think about or think more often to go by train, maybe. But I cannot see any change in my thinking to this point today. I can't see if the influencers I saw made a change already. (P7).</p> <p>(...)for instance my parents now they moved to Valencia Spain and Spain for instance had lots of issues in Barcelona with like Airbnb's and stuff that the local people couldn't afford to live there anymore so I think about that also (...). (P1)</p>

<p>4. Disbelief towards sustainability path</p>	<p>4.1. Disbelief in the significance of personal choices</p>	<p>No I don't have the feeling that my individual choice is making a difference for the for the global yeah for climate heating yeah no I don't have to no and...the big economies. it's not about this one flight for me personally in one year that's um harming so much or doing so much harm to the climate. (P7)</p> <p>Yeah, for my own, like, not to have a bad conscience, I like to, yeah, maybe when taking the car and saying, okay, we can drive together and, like, do the small steps that would help. It feels good for me, but I'm sometimes doubting it's, like, making an impact on the bigger picture. (P4)</p> <p>They can make a difference (...). For myself, for example, for, like, every each individual to just make sustainable, like, choices. I think it could make an impact on the whole. But then everybody has to make the same good choices to make a difference. (P3)</p> <p>I think I'm a bit less convinced with what I'm doing than I was before. I think I could have, like I was more behind my choices in the past, and now I'm kind of a bit like, yeah, I mean, what's the point in it.(P2)</p> <p>So it's definitely something we should be able to do together collectively. Then I don't think I can influence collectively that people should fly less or take the train more because of different circumstances, financial and everything like that. (P6)</p>
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<p>4.2. Criticism towards the unjust structures of society</p>	<p>I've worked with marketing before and I'm quite sceptical towards, for example, travel companies using sustainability as a well for marketing like I mean all companies can say they do something so train companies will say they do what they can but also flight companies will say they do what they can. (P5)</p> <p>I just don't see why you would like, I never really understand why someone's personal choices in that matter have to be the ones responsible basically for saving the world. In that case, like you cannot expect from people to pay more, to basically emit less. I don't think that's a sustainable way. (P2)</p> <p>If I take a very clean train travel somewhere and then I just eat meat the whole time I'm there, it's also not good for the environment, right? Yeah. Like it's always, it's a lot of different things that you have to think about actually. Yeah. And it's not necessarily only travel then. (P1)</p> <p>Like if there is another option then I don't know like flying or that's what I was thinking is how can I make a more sustainable choice when there is no other option given to me from the government (...). (P3)</p> <p>I also saw like watch some documentaries about like the richest people how they impact environmental sustainability or how they how they view themselves how much they contribute to it. And it was very surprising because they also, in this documentary, they had the perception that it's not them who contribute so much to higher emissions or stuff. And they were saying stuff like, yeah, other people also take flights and stuff, right? While they were coming in a private jet. (P1)</p>
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	<p>And cutting down on so much of everybody else is not doing it. And if like the policy direction on the global level is just like going in a different direction, you feel like mm-hmm. (...) I mean, what's the point of me not, not, I don't know, flying to Rome for example, and having a nice weekend. (P2)</p> <p>I mean, I think I just got to a point where I thought that I also want to experience kind of the world or a bit at least a part of it. And I didn't want to like cut down so much that I don't go anywhere because of the environment. I don't know, I got a bit nihilistic about some stuff. (P2)</p> <p>And I do care a lot about sustainability, but I have not come to a place where I've started to live accordingly, and I don't know if I ever will. Because I don't know how many things of my life, I'm ready to give up for that cause. And as long as society looks like it does and people behave the way they do, I don't feel like I have the strength to be the one person that behaves differently. And that's obviously a hypocrisy. (P5)</p> <p>Sometimes it's different for me to have a look at my own traveling behaviour because I think I'm getting egoistic in this point. This is the point where I think so you know what um I I don't think that I can change the whole (...) emissions sorry um by not traveling once a year to a bigger vacation and therefore I'm just ignoring the fact that flying is not that good for our environment. (P7)</p> <p>"I don't know. Is it important to justify them? Yeah, that's also an important question back to me. Because I don't know. I cannot." (P3)</p> <p>"I do think about that, but it's not that it's something that I'm stuck with. I don't think about that all the time. I'm sure it comes up, but I don't have another solution or whatever" (P3)</p> <p>No, I don't think I've thought about it that much. Of course, you think about the people who live there, that you behave as you should. But not so much in terms of the environment. So as long as you handle your garbage as you should. (P6)</p>
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<p>5. Early education and norm awareness in ESD</p>	<p>5.1. Formal education: Starting young with focus on capability of weighing options and critical thinking</p>	<p>If we talk about education and how we inform people yes, I think they're they don't have a feeling for it and I also think that we need to go much lower in this education aspect so which um lower like earlier in the and also earlier but also um less complex like "what do you think emissions are? Where did they get from?" (P7)</p> <p>I think education and informing people about actual for instance net emissions impact on certain travel stuff as I said before so with flying car or whatever I think for probably for many people it's also not so clear what exactly contributes so much to our environmental sustainability or like the emissions impact(...). (P1)</p> <p>I actually checked it once. it could be environmentally less harmful to take a flight than using a car alone for instance for a long distance, so I don't know if that's always I think it's a bit of a maybe misconception also (...). (P1)</p> <p>"And I think also for the younger people, it's very important to give them options and to show them, okay, it's not that bad. We still can do something." (P7)</p>
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	<p>5.2. Informal education: Social norms and media bubbles are strong influentials</p>	<p>I see posts from a group of people traveling around the world by train, often with families with kids traveling, doing their vacations by train. And I think that's also very inspiring and shows you that it's possible, that it's not necessarily complicated, it doesn't have to take too long (...). (P5)</p> <p>“Actually, I think, I don't know if it would be a good idea to integrate it into school. I think there will be a lot of subjects that will be good to integrate it into school.” (P4)</p> <p>“Maybe with talking. When someone has a family or children and then talking about it, actually. So, educating their children when talking, sitting in the evening with the dinner and then just talking about (...) yeah important things.” (P4)</p> <p>Yeah, I think a major challenge is, for instance, in my circles, also when we talk about social media, which has a huge impact, I think, I think people live in bubbles alone- I think in my friend group and in my feed, what I get, it's very present. But people who are not interested in that, they will also not be so, how do you say, they won't have such an awareness, and they also won't be (...) there's no discussion about it (...). (P1)</p> <p>But, uh, I would say like, for example, my, in my current relationship or also like with my friend group, uh, I think if I just see people doing something more than I am less inclined to not do it, for example. So, if I just see everyone eating, I mean, eating meat is not something that I would do ever. (P2)</p> <p>“I don't think it's that people aren't educated. I think we're becoming more and more educated about how our travel habits affect the environment. But it's mainly about accessibility and cost, I think.” (P6)</p>
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Theme one: Willingness for sustainable behaviour

The first theme from the analysis presents a range of suggestions for the travel behaviours of the participants, and reflections concerning their awareness for what sustainable travel options are and how willing they are to engage in them or if they are important to them. To be more specific, choosing train travel above flights for shorter distances as an example. The initial findings from the analysis showed that most of the participants travelled on vacation less frequently than they wanted to, and the number of vacations reported varied from one to three vacations per year. Six out of seven participants (who all lived in bigger cities) showed commitment to using public transport in everyday life, except for P6 who did not have access

to public transport alternatives in the place of residency and were restricted to using car as main way of transportation.

One of the first core findings from the analysis was the clear trace of educational background and level of education in the answers extracted from the participants. P3 and P6 were the only two participants from the study sample with only a completed high school degree, and their answers were characterized as concise and lacking in detail and depth, with little attention to feelings and thoughts about sustainability and sustainable travel. For example, P3 could to a little degree account for aspects of sustainability as important or the sense of guilt for not putting environmental interest first. This was also parallel to a lacking interest in sustainable living in general during the interview, which indicates an association to TRA, and how the intention to perform a behaviour often is a key predictor to actual behaviour change (LaCaille, 2013), which in this case points to the opposite side of the spectrum where disinterest equals absenteeism in action. No significant difference in attitudes between Germany and Sweden, or even sexes, could be observed, which indicated socio-cultural similarities between the participants in their values about sustainability. Again, the small sample size made direct connections between the representing countries and country population level of this thesis irrelevant. When reflecting over preferred ways of travel, six out of seven participants felt positive towards travelling as much as possible by train but were at the same time subjective to restrictions of infrastructure when traveling to their hometown and vacation destinations in “close” proximity:

When I drive home to my hometown, I only take the train because it's very easy and the route is very good so I don't have to move trains so it's easy and it doesn't take a lot of time for me because going by car would be longer and would take more time for me. So, using the train is the best option for when I drive home and for vacation. (P4)

A similar chain of thought was presented by P6, who felt that it was not financially possible to maintain a more sustainable travel behaviour, even when willingness to do so was present:

“I would definitely like to travel more by train, but it is not sustainable financially and in terms of time.” (P6)

Participant P3 presented awareness and care for sustainability problems, but was not convinced they were that important:

“So yeah, think about it, but it's not as important to me. So I don't think about it anymore.” (P3)

Overall, the findings from Theme 1 revealed a varied level of awareness and willingness towards sustainable travel behaviours among the participants, with financial constraints playing a significant role in shaping their attitudes. While a majority of participants expressed positive attitudes towards more sustainable travel options, such as train travel over flights, their willingness to adopt these behaviours was often led by, or restrained by practical factors such as infrastructure limitations, cost, and time efficiency. This theme highlights the complexity of translating awareness into action, as well as the impact of individual circumstances and educational background on sustainable travel choices.

Theme two: Behaviour-attitude dissonance

The second theme and sub-themes highlight the reflections from the participants, whether they felt inconsistent in their behaviour, and how they reasoned and reflected over the potential gap between attitude and behaviour. A difficulty to translate attitude to action could be observed among all participants, but there may be many varying factors involved in a person's behaviour outcomes that this study is not capable of measuring. The findings from this theme and sub-themes pairs well with TRA that seeks to understand human behaviour, and how intention behind the action is one of the strongest indicators for predicting behaviour (LaCaille, 2013).

Sub-theme: Lack of affordable options created barriers

All participants reported personal financial situation as one of the most essential and influencing factors for choosing travel options, like choosing airplane over train, even though the journey could well have been made by travelling by train. This perceived barrier and restraint was brought up by P2, P3, and P4 for example:

So usually, I have to take a plane for even not that far of a destination, but, um, since it's usually cheaper I take the plane. Yeah. But I would like to travel more by train actually, if possible. 'cause I just like to take the train. (P2)

“I would definitely like to travel more by train, but not sustainable financially and in terms of time when you start from Torsby.” (P6)

Yeah, I think the cost factor is a very huge part of decision making. So, when it's too expensive, I would avoid it at all to travel. Yeah. When taking the train, I have the luxury of having a Bahncard. A Bahncard in Germany is (...) when you get discounts on certain train rides. So that makes my choice easier. (P4)

Although economic barriers were thematized throughout the interviews, not all sense of barriers resulted in a “bad” decision or dismissal of sustainable behaviour. If high prices were perceived as a barrier for flights, two participants stated that they would consider not going on the planned journey at all, like the statements from P4 and P5:

But in general, I think it's okay and it's an easy way to travel if everything works with the Deutsche Bahn. But when taking the flights, I would say costs are a very big barrier because if it's too expensive, I would not consider going on that vacation. (P4).

But when taking the flights, I would say costs are a very big barrier because if it's too expensive, I would not consider going on that vacation because I check the prices before and then see if it's too expensive. (P5)

Although, it is important to acknowledge that these statements lack connection and explanation to the psychological process behind making these decisions in this case and not dismissing booking flights because of the environment or personal belief.

Sub-theme: Willingness to engage in sustainable travel, but protects personal interest

Four participants were presenting thoughts about wanting to travel more sustainable but feeling restricted by factors that are outside of personal influence, like financial situation and time.

Some participants had successfully bridged the gap between attitude and behaviour, by reconsidering vacation destinations, and choosing options in a closer range that is accessible by train. For example, by P1:

I think it also changed a bit, meanwhile. And I think nowadays I try to also think about environment, like environmental sustainability. Yeah, and also try to avoid maybe flights that are unnecessary. And I think now I try to choose my location more in closer proximity. (P1)

A similar reflection came from P4, who was prepared to cancel a trip due to barriers that were out of her influence, that was also presented in sub-theme 2.1:

But in general, I think it's okay and it's an easy way to travel if everything works with the Deutsche Bahn. But when taking the flights, I would say costs are a very big barrier because if it's too expensive, I would not consider going on that vacation. (P4).

Other participants were still more interested in creating a journey that suited them the best, although it resulted in simultaneously abandoning their sustainable travel attitudes.

Sub-theme: Justification to travel due to low frequency, or compensation with another sustainable behaviour

When discussing feelings and perceptions about the sense of guilt and potential need of justification for their travel behaviours, six out of seven participants highlighted that they travelled less frequently than they wanted to and used that fact as a justification. From this perspective, they felt deserving of traveling via airplane, although they simultaneously understood and cared for climate related problems and inherent issues of their behaviour. This notion came from P7 for example, who reasoned like this:

(...) by not traveling once a year to a bigger vacation and therefore I'm just ignoring the fact that flying is not that good for our environment. But I try to have a look during my normal day like, I'm getting groceries, not using this much plastic and eating more vegetables, try to reduce the meat consumption and stuff like this. That's the point where I care about the emissions and my environment. And then travel is separated from it. (P7)

P5 did a similar reasoning whilst incorporating thoughts about sustainability in relation to social norms and discussed a potential normalization of traveling as an imbedded part of our culture:

I mean, all travels are like, especially if you go far away and if you travel by plane, of course, it's problematic. I mean, I've been thinking a lot about this, like the feeling that you deserve to travel. Um it's very like that comes from somewhere like from a social uh from culture I guess but it's uh it's something we take for granted and I think that's problematic in itself. (P5)

In summary, Theme 2 illustrates the cognitive dissonance between participants' sustainable travel attitudes and their actual behaviours. While some participants expressed a genuine desire to adopt more sustainable travel habits, practical constraints such as financial limitations, time, and personal convenience often took precedence over environmental concerns. These barriers were particularly evident in participants' justification for flying despite an awareness of the negative environmental impacts. A key finding within this theme is the complex relationship between personal values and travel decisions, where participants attempted to reconcile their desire for sustainability with the reality of their lifestyle choices. This highlights the ongoing tension between intention and behaviour, which is further influenced by social norms and cultural expectations surrounding travel. The findings align partially with the TRA, demonstrating that while attitudes may drive intentions, external factors and perceived justifications often shape actual behaviours (Sheppard et al., 1988).

Theme three: Social influence and norms

The third theme represents the recurring positive attitude towards the value of social exchange, inspiration and norms that was present among many participants. In this theme, a key concept of the importance of informal education was highlighted as a facilitating factor for strengthening the relationship between attitude and behaviour. The influence of positive reinforcement of sustainable travel behaviour also came from social contacts, and not necessarily educators or informers, like the example from P5:

“My parents, I think, really tried to make better decisions based on, well, sustainability, and I also feel like they have had a lot of changes.” (P5)

In two cases, participants gave reflections over social sustainability that did not relate to self-improvement, but rather awareness and care for social sustainability, like P1, who has had courses of sustainability from university:

(...)for instance my parents now they moved to Valencia Spain and Spain for instance had lots of issues in Barcelona with like Airbnb's and stuff that the local people couldn't afford to live there anymore so I think about that also (...). (P1)

This indicates the function of formal education as means to equip an individual with critical thinking and knowledge that might eventually evolve or engage in behaviour change. This insight can be well explained by CT, where one key concept relates to the social and cultural pillar of sustainability, and to transform society to combat social injustices (Ryoo & McLaren, 2010).

Another perspective on positive sense of social influence was brought up by P7:

I have some influencers who are showing to go to nice places by train. And maybe this would be an aspect to think about or think more often to go by train, maybe. But I cannot see any change in my thinking to this point today. I can't see if the influencers I saw made a change already. (P7)

In Theme 3, the analysis reveals a clear emphasis on the positive influence of social exchange, norms, and informal education on sustainable travel behaviour when interpreting the perspectives and reflections of the participants. Participants consistently reflected on how social interactions, especially with family and peers, contributed to the reinforcement of their attitudes toward sustainable travel. These types of reflection can be understood or reinforced by TRA, and how social environments is a key factor in fostering attitudes (LaCaille, 2013; Sheppard et al., 1988). Positive reinforcement, often through informal sources like parents or social networks, played a perceived significant role in shaping their behaviours. Formal education also emerged as a suggested key enabler, equipping individuals with the necessary knowledge and

critical thinking skills to address sustainability issues, including social sustainability. This is particularly exemplified in the reflections of participants like P1, who linked academic learning to broader societal issues such as personal economy and social equity. However, the role of social influence in altering travel behaviour was not always immediate or certain, as shown by P7's reflection on influencers' potential impact. Overall, Theme 3 underscores the perceived importance of both formal and, in particular, informal education channels as key factors in shaping participants' views on promoting positive behaviour change and sustainable practices. At the same time, it acknowledges the complex role of social influence in individual decision-making.

Theme four: Disbelief towards sustainability path

Another major finding from the analysis that related to the dissonance reported from six out of seven participants when wanting to choose more sustainable travel options but not always succeeding to, could be traced back to a critical standpoint towards a sole individual responsibility, and several participants questioned that type of finger pointing. Instead, a critical disbelief in the current trajectory of sustainable development gave fertile ground for suggestions of improvements for young travellers to choose environmentally friendly means to travel in the first place. Again, this can be traced back to CT, because it emphasizes the ability of the participants to question societal structures, which can be associated with a critical consciousness that Freire ([1970] 2001) highlights as a vital tool for learners. Although, in this specific example, it could result in an abandoned sustainable behaviour which can be acknowledged as a problematic counter effect. Further on, by interpreting the answers through the lens of TRA, the way the participants justify their lacking motivation by their sense of disbelief can be explained by Ajzen (1991) as a barrier for intended behaviour if an individual does not expect a positive outcome from the certain action taking.

Sub-theme: Disbelief in the significance of personal choices

When asked about the perceived significance of personal choices and small acts of sustainability, many participants reported a disbelief in whether their choices really made a difference for the environment on a big, global scale. This type of reflection was also associated

with losing interest in changing the behaviour and making sacrifices in terms of comfort and money. This is mentioned by P3:

“I don't know. Is it important to justify them? Yeah, that's also an important question back to me. Because I don't know. I cannot.” (P3)

At the same time, personal regards or interest in sustainable living for P3 was low, which could also be related to a critical standpoint of perceived personal responsibility:

“I do think about that, but it's not that it's something that I'm stuck with. I don't think about that all the time. I'm sure it comes up, but I don't have another solution or whatever” (P3)

The interviews mainly steered the discussions towards an individual perspective, and when reflecting over personal behaviours, participants often felt like their choices of sustainable pursuit did not make a change on a large and global scale.

Sub-theme: Criticism towards the unjust structures of society

A critical stance on individual responsibility and blaming was taken by P2, who questioned the expectations of individuals to go out of their way for sustainability for reasons that does not feel fair, whilst experiencing a sense of hypocrisy from the government and stakeholders to also meet requirements for SD. To be more precise, the choices for sustainability that required personal sacrifice like choosing more expensive options or more time-consuming travel routes that results in being exemplary role models. Again, the positive aspects of the concept of critical consciousness as advocated for by Freire ([1970] 2001) to be a necessary tool in emancipatory education that empowers individuals to question societal structures. The critical stance presented by P2:

I just don't see why you would like, I never really understand why someone's personal choices in that matter have to be the ones responsible basically for saving the world. In that case, like you cannot expect from people to pay more, to basically emit less. I don't think that's a sustainable way. (P2)

This is complemented by a statement of P3, who does not identify a personal obligation to choose more environmentally friendly options when it is not possible to do so:

“Like if there is another option then I don't know like flying or that's what I was thinking is how can I make a more sustainable choice when there is no other option given to me from the government (...).” (P3)

Discussions about this type of experienced contradictory aspects was brought up by P5, but was particularly aimed at personal experiences with companies and marketing strategies that were perceived as methods of greenwashing and cause of resignation for believing in the impact of individuals:

I've worked with marketing before and I'm quite sceptical towards, for example, travel companies using sustainability as a well for marketing like I mean all companies can say they do something so train companies will say they do what they can but also flight companies will say they do what they can. (P5)

Similar feelings of scepticism and criticism towards power structures was presented by P1, who through self-acquired information was questioning and thematizing issues of inequality as a major contemporary problem for achieving meaningful SD and how these power structures work against this aim. This is followed up by an excerpt from P1, who was also questioning the same phenomena:

I also saw like watch some documentaries about like the richest people how they impact environmental sustainability or how they view themselves how much they contribute to it. And it was very surprising because they also, in this documentary, they had the perception that it's not them who contribute so much to higher emissions or stuff. And they were saying stuff like, yeah, other people also take flights and stuff, right? While they were coming in a private jet. (P1)

The findings for this sub-theme can be well linked to some aspects of CT, as it displays how individuals that recall having received both formal and informal education are able to take a critical stance and make interpretations of different power structures in society and matters of inequality as barriers that are interlinked with cultural political domination and subordination (Ryoo & McLaren, 2010).

Sub-theme: Feelings of disbelief in individual sacrifice

Once again for this subtheme, P2 expressed disbelief in personal sacrifices that might potentially result in lost life experiences:

I mean, I think I just got to a point where I thought that I also want to experience kind of the world or a bit at least a part of it. And I didn't want to like cut down so much that I don't go anywhere because of the environment. I don't know, I got a bit nihilistic about some stuff. (P2)

This perspective was also brought up by P5, and both P2 and P5 have received information or education about sustainability in general, both in a formal and informal context. Despite this, the two participants shared critical thoughts about being reluctant to abandon personal desires for an environmental cause that at times feels overwhelming or in vain.

And I do care a lot about sustainability, but I have not come to a place where I've started to live accordingly, and I don't know if I ever will. Because I don't know how many things of my life, I'm ready to give up for that cause. And as long as society looks like it does and people behave the way they do, I don't feel like I have the strength to be the one person that behaves differently. And that's obviously a hypocrisy. (P5)

These two excerpts for subtheme 4.3 show well how the participants justified their behaviours in relation to sustainable travel, which resonates with TRA in clear way, since the critical attitudes may be an important indicator for the prediction of behaviour (LaCaille, 2013) and resulting in a sense of discouragement to translate attitude into intentional sustainable behaviour.

In Theme 4, the thematic analysis reveals a general strong sense of scepticism among the participants regarding the efficacy of individual actions in achieving meaningful sustainable development. Many expressed doubts about the significance of personal choices, particularly when it came to sustainable travel, and questioned the fairness of placing the responsibility for environmental change solely on individuals. This disbelief in the power of individual actions can be linked to a broader critical perspective, where participants challenged the structural focus on personal responsibility and saw it as insufficient for addressing systemic issues. The critical reflections of participants like P2, who questioned why individual sacrifices were expected to "save the world" highlight a frustration with the societal framing of sustainability. These sentiments were further underscored by participants' feelings of helplessness, with some adopting a nihilistic stance toward environmental responsibility, as seen in P2's acknowledgment of a desire to experience the world without feeling guilty. This critical perspective that pairs well with Critical theory and the work of Freire ([1970] 2001) allows participants to question societal structures that simultaneously presents a challenge for promoting individual behaviour change, as it may result in disengagement from sustainable practices.

There is also a strong connection between these reports that can be associated with TRA, that suggests that an individual's belief in the outcomes of a certain behaviour is a relying predictor to whether they are motivated to engage in the behaviour change or action taking (LaCaille, 2013; Sheppard et al, 1988). The reported lacking motivation for making personal sacrifices can therefore be interlinked to the feelings of disbelief and negatively perceived outcome prospects from the use of TRA. Thus, the attitude-behaviour dissonance became clearer when TRA was used to interpreting and analysing the answers from the participants. Overall, the theme reveals a complex dissonance between personal willingness to engage in sustainable behaviour and a broader disbelief in the impact of such actions, pointing to the need for structural changes beyond individual responsibility.

Theme five: Early education and norm awareness in ESD

The fifth theme contains thoughts and suggestions from the participants that are related to what type of education (formal or informal) that they recall having received about sustainability, and how they related them to their personal experiences and potential attitude and behaviour change.

Sub-theme: Formal education: Starting young with focus on capability of considering options and critical thinking

One notion from P7, who were at the time of the interview studying to be a high school teacher in Germany brought in some conceptual suggestions to how formal education could be changed or improved to address the dissonance between attitude and behaviour, or at least to lay the foundation for that possibility. One suggestion was to start early in education and focus on concepts that could give younger people a wider perspective or less complex understanding of natural forces:

If we talk about education and how we inform people yes, I think they're they don't have a feeling for it and I also think that we need to go much lower in this education aspect so which um lower like earlier in the and also earlier but also um less complex like “what do you think emissions are? Where did they get from? (P7)

P7 continued to reflect on how young adults could understand concepts of sustainability better and redirect the feelings of dystopian disbelief into more positive ways of thinking and the importance of creating resilient individuals with influence of emancipatory education:

“And I think also for the younger people, it's very important to give them options and to show them, okay, it's not that bad. We still can do something.” (P7)

P1 presented the same line of thought about potential gaps in education where knowledge and understanding are missing on certain levels:

I think education and informing people about actual for instance net emissions impact on certain travel stuff as I said before so with flying car or whatever I think for probably for many people

it's also not so clear what exactly contributes so much to our environmental sustainability or like the emissions impact(...). (P1)

Sub-theme: Informal education: Social norms and media bubbles are strong influentials

Discussions involving perceived effect of social media and influencers occurred with six out seven participants and is considered a key finding from the analysis. An example from P5, who talked about the importance of involving family members as a way to spread awareness and new ideas:

I see posts from a group of people traveling around the world by train, often with families with kids traveling, doing their vacations by train. And I think that's also very inspiring and shows you that it's possible, that it's not necessarily complicated, it doesn't have to take too long (...). (P5)

This notion is also aligned with TRA where one of the core features of the theory addresses how intentions of behaviour are predicted by attitudes and subjective norms (LaCaille, 2013), and if an individual perceives a certain action taking as being supported by subjective norms, positive attitudes about the value of the action, and personal belief in the outcome, a meaningful behaviour change is more likely to emerge (Sheppard et al., 1988). The participants who felt positive towards the possibilities that social media provides also expressed more interest and willingness to engage in sustainable travel. Although mainly positive about the possibilities of social media, P1 went more into depth and gave critical reflections on the “bubbles” that also occur, and how an inherent risk of calculated algorithms might not reach the audience that does not already have interest in the subject. The idea originated from this statement:

Yeah, I think a major challenge is, for instance, in my circles, also when we talk about social media, which has a huge impact, I think, I think people live in bubbles alone- I think in my friend group and in my feed, what I get, it's very present. But people who are not interested in that, they will also not be so, how do you say, they won't have such an awareness, and they also won't be (...) there's no discussion about it (...). (P1)

One participant (P3) reported not using social media or following the news and simultaneously expressed little interest in sustainability. Notably, this individual did not view personal engagement in behaviour change or adaptation as important. However, it is important to clarify that no direct connection can be made between these views and the participant's actual behaviours; the intention is not to imply causality or draw firm conclusions from this individual account. The following excerpt from P3 points to a suggested relationship between minimal personal experiences and recollection of ESD in various forms, and disinterest in the topic:

Actually, no. But this is something, because I've actually never looked it up somewhere. And I don't have social media accounts. And back when I was in school, which is 11 years. Sustainability was not like a huge topic at that point. So, I've never been taught anything about that, neither in school or like Instagram or whatever, because I don't have that Instagram thing.
(P3)

Once again, this type of finding can be associated with TRA, and thus how intention can be predicted by attitudes (LaCaille, 2013), which in this case was portrayed as an absent intention to engage in sustainable travel. This is also an indicator for how ESD can play a role in manifesting behaviours through the influence of informal education.

In Theme 5, the findings emphasize the pivotal role of both formal and informal education in shaping attitudes towards sustainability, particularly in the context of travel behaviours. A key takeaway from the analysis is the recognition that early education is crucial for fostering an understanding of sustainability and equipping young individuals with the capability to make informed decisions. Participants like P7 and P1 advocated for a more comprehensive and accessible education system that begins at an early age and encourages critical thinking about environmental issues. These are interesting suggestions because P7 were at the time of the interview studying to become a teacher in high school, and P1 had been taking university classes in sustainable development.

This aligns with the notion that ESD should not only focus on knowledge but also empower individuals to feel that change is possible (UNESCO, n.d). On the other hand, informal education, particularly through social media and influencers, was identified as a strong influence on shaping behaviours and attitudes, with participants like P5 highlighting how social media posts showcasing sustainable travel can inspire others. However, some participants, such as P1, raised concerns about the potential limitations of social media algorithms, which may create “bubbles” that limit the reach of sustainability messages to those already interested. Meanwhile, P3’s lack of interest in both formal education and social media underscores how limited exposure to sustainability issues can hinder engagement and behaviour change. Overall, this theme possibly illustrates the significant impact of both formal and informal educational pathways on sustainability attitudes, while also acknowledging the challenges in ensuring these messages reach a wider audience.

Discussion

This chapter discusses the key findings of the study in relation to existing research, the research questions, and the theoretical frameworks that guided the analysis. The discussion aims to interpret and contextualize the results, offering both critical reflection and broader implications for the field of Education for Sustainable Development (ESD). Through this, the chapter highlights how the study contributes to ongoing conversations in the literature and identifies potential directions for future research and practice.

Discussion in relation to existing research

When linking the findings from the analysis back to existing research presented in the literature review, interrelated similarities can be reported in several cases. Firstly, when discussing young adults from both Sweden and Germany's attitudes towards sustainability, the analysis resonates with the study of Hume (2009) that refers to Bentley et al. (2004) and observations made about young adults and their raising awareness and concern for sustainability issues and environmental challenges. This can also be further connected to the study of Hickman et al. (2021) and how the concern for environmental issues and climate change is manifesting itself as eco-anxiety and climate-anxiety in young adults globally. Despite the increasing awareness of climate issues and positive attitudes towards practicing sustainable travel, the barriers for the participants from this study sample reported difficulties in translating their attitudes and concerns into a behaviour change. The scientific study by Holmes et al. (2019) is supporting the findings of this study by highlighting economic (and socio-economic) barriers for people to engage in sustainable travel. A clear indicator for this was the notion of what a "green traveller" is, and how they are often distinguished as a person with a strong socio-economic profile of high income and education level (Holmes et al., 2019). All participants for the study sample could report economic barriers as important for decision making and a reason for not engaging more in sustainable travel practices, as presented in sub-theme 2.1: *Lack of affordable options created barriers*. It may also be of importance to acknowledge that none of the participants for this study were asked about their salaries or other types of disposable income, and it is therefore not possible to make comparisons between participants and psychological aspects of how much they are willing to spend on sustainable travel in terms of money. It could have been a complementing piece of information to collect from the participant and can arguably be

regarded as a weakness of the study. When it comes to the reported behaviour or actions in relation to sustainable travel, the findings that indicated that the participants are restrained to perform a certain behaviour due to socioeconomic barriers and poor infrastructure can be linked to TPB, and how non-motivational factors also influences behaviour if an individual have the resources and possibilities to do so (Ajzen, 1991).

To further link socio-economic characteristics in terms of education as an indicator for creating environmentally engaged individuals, the findings from this study could be well associated and supported by the same notions of Holmes et al. (2019) in the prevalence of higher-level education for travellers that are more inclined to make sustainable or “green” choices. The study of Gupta & Ogden (2009) identified inconsistent environmental action to be strongly influenced by a perceived social dilemma of not being prepared to spend a lot of money for “green” products. It is important to make distinctions between the differences in “green” or sustainable purchases, as everyday utilities compared to booking a holiday for example, as they are inherently bigger and require more planning. However, a contradicting piece of research suggests that young adults are a strong consumer group compared to previous generations in terms of disposable income (Kanchanapibul, 2014). As already stated, the participants were not asked about their income or understanding of how much money they are willing to spend for the sake of the environment, and so this study fails to explain an aspect of dissonance on this level.

When linking the findings from this study in terms of the social influence and norms, previous research is supporting the findings to a certain extent. For instance, observations presented by Oinonen & Paloniemi (2023) in their scientific study regarding how sustainability issues and challenges expand over matters of the environment but are often intertwined with socio-cultural aspects. According to Oinonen & Paloniemi (2023), young adults by their definition (Gen Z born between 1997 and 2012) are more inclined to carry out certain behaviours in groups or as a collective force, whereas adults often make choices and engage themselves individually in certain behaviours, and that could explain the feelings of disbelief the participants reported that made them feel pessimistic and critical towards the importance of personal choices and sacrifices when they perceived a lacking engagement from people in their surroundings or on a community level. It must however be pointed out that the sample for this study were older than

Gen Z, and rather part of the Millennial population group, since the youngest person in this study sample was 26 years old and born 1998. This mismatch in age span can be confessed as a weakness to this study.

To further connect and highlight the tangible effect of ESD possess on adopting sustainable travel behaviour and how it is related to the observed dissonance between attitude and behaviour, the findings are supported by previous research. For instance, the study by Gomes & Lopez (2023) had already linked ESD to positive effects in fostering sustainable, conscious attitudes and pro-environmental behaviour, which arguably could involve sustainable travel habits as well. The same notion is supported by Vare & Scott (2007), that also addresses the difficulties for individuals to translate a convincing positive attitude and care for the environment to an actual behaviour change.

Discussion in relation to research questions and theoretical frameworks

The findings from the analysis gave insights and some interesting findings to the three formulated research questions that can be of importance for the sake of progressing the dimension of sustainable travel within ESD. The research question will be answered below with support from the theoretical frameworks TRA and CT.

RQ1: How do young adults in Sweden and Germany perceive and reflect upon the inherent issues of travel from an environmental perspective?

From the extractions of the analysis, young adults in Sweden and Germany show great awareness for inherent environmental issues of traveling, and most of the participants took that into consideration when booking a vacation or journey. Although the willingness for choosing more sustainable travel options like train above car or airplane, participants were most likely to reserve and restrict considerations and intention of behaviour to certain routes, like visiting family within a reasonable distance and using public transportation in everyday life. When reflecting upon the inherent issues of travel, a counter argument for not being in position of choosing the most sustainable option was directed at financial restrictions, time factor, travel comfort and lacking efforts to provide the population with possibilities to do so. These matters

have already been discussed in relation to CT and TRA, which to a great extent were able to shed light upon why the attitude-behaviour gap were so persistent, despite the fact that the participants simultaneously expressed concern for the environment and climate change. Another explanation for the perceived barriers to prevent a positive behaviour change that stems from a position of disbelief (personal sacrifice, lacking efforts from government, and the current course of SD) and how it relates to TRA that points to the expected outcome of a behaviour to be of importance (Ajzen, 1991). When individuals make efforts or personal sacrifices for the environment, the impact of these “good deeds” is not immediately visible. For example, choosing a train over a flight does not result in a tangible, measurable improvement to the climate in that moment. This lack of immediate feedback can potentially affect internal motivation, making it more difficult to sustain environmentally responsible choices over time.

RQ2: How do young adults in Sweden and Germany reflect upon, and justify their behaviour in the context of sustainable travel?

Drawn from the analysis, participants presented a number of ways to justify their behaviour, and the key findings from the five themes presented in the analysis draws attention to critical mindsets on five of the participants, and thus disbelief in putting responsibility on individuals for saving the environment, disbelief in the government for lacking efforts, and disbelief in the value of independent action taking or decision making. The findings for RQ2 resonate well with TRA from the same perspective as in RQ1. The origin for this general type of reasoning might be associated with the current global financial crisis and can be considered a major barrier for further SD, but also a perceived restraint for individuals and resulting in discouragement for pursuing sustainable travel possibilities although being well informed and caring for environmental sustainability. When it came to justifying their behaviour, the disbelief in the effect of personal choices and discouraging thoughts about other people around them also didn't participate and make sacrifices were clear. When looking at this through the lens of TRA, this relates quite well to the role of subjective norms in determining the attitude towards a certain behaviour (Hale et al., 2002). This highlights feelings of a society that fails to support individuals with pure intentions of sustainable travel behaviour that must be put aside when economic and political barriers overrule intended behaviour.

As previously noted, no significant differences between the countries were observed. Sweden and Germany share many cultural similarities as well as comparable challenges related to structural issues and weaknesses in their national train infrastructures (Burke, 2025; Global Railway Review, 2024). However, due to the small sample size, no direct connections can be drawn between individual participants and national-level trends, nor can the findings be considered representative across countries. This is a concerning barrier overall, but especially for young adults that can be considered a socio-economically challenged group, although the sample for this study contained almost exclusively individuals in their late twenties. It might on the other hand be more useful to focus on the similarities between the two countries in regard to social and cultural settings. It is relevant to assume that young adults experience pressure from peers or society to engage with sustainable travel behaviour, as six out of seven participants expressed shame or awareness about the attitude-behaviour gap but also are torn between not wanting to abandon personal desires or experiencing FOMO (fear of missing out), which also partly explains the portrayed justifications.

RQ3: How do young adults in Sweden and Germany relate their perceived attitudes and travel habits to their recollection of education and ESD?

The extractions from the interviews of how the reported remembrance of formal and informal education and ESD gave important insights and indications into how what role these play in facilitating positive attitudes toward sustainable practices. The study sample included participants with educational backgrounds ranging from a high school diploma to a master's degree, with two individuals having completed university-level courses in Education for Sustainable Development. As reflected in the analysis, participants with higher educational attainment tended to express greater consideration for alternative travel methods aligned with the environmental and social dimensions of sustainability. The findings allowed for distinctions between the influence of formal and informal ESD on participants' willingness, intentions, and reported behaviours related to sustainable travel.

Among those with higher levels of formal education—specifically, two participants who had taken sustainability courses at a Swedish university—there was a noticeably higher interest and engagement in sustainable travel practices. However, it is important to ethically acknowledge

that pre-existing interest in sustainability likely motivated these participants to pursue such courses. This prior engagement forms the basis for how education may have shaped their perspectives and behaviours, rather than implying a direct causal relationship. This could partly be explained by the reflections regarding the influence of peers and social media influencers, and the social circles that are drivers of certain attitude forming and decision making, according to several of the participants. Yet again, these insights can be supported by TRA, and how significant others and peers influence subjective norms (Hale et al., 2002). When participants discussed the influence of informal ESD, or similar attitude influencing strategies in society like company marketing strategies, social media, youtubers, and politicians, the most participants could account for the promoting effects on their attitudes towards sustainable travel, but not everyone could ensure or disclose a personal behaviour change so far.

Conclusion

The last chapter of this thesis intends to summarize the findings from this study as a starting point for suggesting ideas for further research and the use of this study as an informative piece for policy maker. The aim of this study was to investigate and interpret the perceptions, attitudes, and justifications for travel behaviour among seven young adults in Sweden and Germany in the context of sustainable tourism and travel, and what possibilities ESD offers in shaping positive travel attitudes and behaviours.

The outcome of this study could present five major themes that captured the key aspects of the way the participants portrayed their environmental concern and knowledge in relation to their travel habits and how they reflect on the perceived personal experiences of ESD/education. The study highlights not only the influence of recalled Education for Sustainable Development (ESD) and higher-level formal education in promoting sustainable practices, but also their role in enhancing young individuals' ability to critically evaluate sustainability-related information. This critical perspective extends beyond environmental concerns to include social and cultural dimensions related to people's overall wellbeing. Other key findings from the thematic analysis gave insights to the justifications for the behaviour of the participants, and these findings suggested a high level of disbelief in both the significance of personal choices in a bigger picture, but also disbelief towards the lacking efforts in terms of social consensus feelings of unity, and opinions of responsibility from government and stakeholders.

On the other side, another central key finding from the analysis pointed to potential powerful influences that participants expressed concerning social circles and role models can have on the attitude and intention of individuals to engage in sustainable travel habits. P7, who was studying to become a teacher for high school students in Germany highlighted the perceived importance of giving student the perspective and feeling of having options when it comes to promoting a sustainable mindset in young people and children.

Information and suggestions for further research and policy makers

It is relevant to acknowledge the importance of social norms drawn from the insights of the findings for this study and it is also relevant to consider possible ways of relating this to educational strategies and policy making. It is equally relevant to address that tools like social media as potential informal education can be two-sided, and the issues of social media “bubbles”, that was discussed by P1. That is, to meet and prevent the inherent issues like algorithms, fake or wrong information and personal interests that shape the experience differently of every individual. The positive impact of sustainability-related information shared on the internet and social media predominantly influences the private lives of young adults. However, given its pervasive presence, it is important to also address its limitations and potential negative effects within formal educational contexts. Due to the research design and the relatively small sample size, this study was unable to fully explore or explain the causes behind the behavioural outcomes reported by participants. This highlights the need for further research using different methods to better understand these dynamics. Future research could be aimed at going deeper into investigating and understanding and the relationship between social media/social norms and peoples reported travel habits because of the overweighing positive attitudes towards social media and peers. Another suggestion for potential future research might in the area of sustainable travel habits that further investigates how people perceive and reflect about power dynamics and structures in society, and how these related to forming certain travel habits.

Drawn from theme 5, subtheme 5.1: *Formal education: Starting young with focus on capability of weighing options and critical thinking*, participants generally believed in 1) starting early in formal education, but also 2) setting good examples and creating resilient and critical individuals and creating discussion and emancipatory education and qualities. For the purpose of setting good examples, focus can be directed towards individuals that expand for example social media influencers, but other significant people and peers in social circles like teachers, and parents and family members. By moving away from the banking concept of education that sees the learner only as an instrument designed to receive, store, and file information passed on from the educator (Freire, [1970] 2001). focus could be directed at ways to make young adults, and even children, a part of the discussion discourse about sustainability and the importance of exchanging thoughts about the freedom and responsibility of choice. These types of

interventions can be directed at parents or family members for instance and create room and time for interactions and discussion between teacher/parent and child in both formal and informal settings. This suggestion is inspired by a notion of P5, who grew up having these types of conversations about nature-friendly behaviour, and from P4, who suggested the same idea of social circle conversation and role models for children as a strategy for informal education.

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DEPARTMENT OF PEDAGOGICAL CURRICULAR AND PROFESSIONAL STUDIES

Appendices

Appendix 1 Recruitment letter

INVITATION TO PARTICIPATE IN RESEARCH STUDY

Dear Participant,

My name is Lisa Strandberg, and I am a Master's student at the University of Gothenburg, specializing in Education for Sustainable Development (ESD). As part of my thesis, I am conducting an interview study to explore the travel habits of young people in Germany and Sweden. The study seeks to understand how individuals perceive and reflect upon their travel behaviors within the context of sustainability and sustainable tourism.

The interview will explore your perceptions, thoughts, and feelings about travel, along with your personal travel habits and the choices you make. It will also focus on how you reflect on and justify these choices from a sustainability perspective, examining the connection between your travel habits and your thoughts about sustainability. Finally, the interview will consider the role of education and information in shaping your awareness and decisions regarding sustainable travel.

I would be honored if you would consider participating in this study. Interviews can be conducted online at your convenient time. If you are interested, kindly respond to this invitation via email by March 31 to schedule an appointment. Upon confirmation, I will provide you with a consent form outlining the ethical guidelines of the study, ensuring your rights and confidentiality are respected. Your insights would be invaluable to my research, and I believe your perspective can contribute meaningfully to understanding sustainable travel habits.

Thank you for considering this invitation. I look forward to hearing from you!

Warm regards,

Lisa Strandberg

Master's Student

University of Gothenburg

Appendix 2 Consent form template

INTERVIEW CONSENT FORM

I am conducting this interview as part of my Master thesis in Education for Sustainable Development (ESD) at Gothenburg University during the spring semester of 2025. The purpose of the study is to explore the travel habits of young people in Germany and Sweden, focusing on how they perceive and reflect upon their habits in relation to sustainability and sustainable tourism. The interview will cover your travel habits, knowledge of sustainability, and personal reflections on your attitudes and behaviors.

Confidentiality and Voluntary Participation

- Your participation is entirely voluntary, and you have the right to decline to answer any question or end the interview at any point without providing a reason.
- Your identity will remain anonymous. In the thesis, you will be referred to using an anonymous code (e.g., “Participant 1”).
- You also have the right to withdraw your consent after the interview. If you choose to do so, all related data will be permanently deleted.

Data Handling

- The interview will be recorded using audio or video depending on your consent.
- All recordings will be securely stored and used solely for data extraction purposes.
- Once the data is extracted and the thesis is submitted, the recordings will be permanently deleted.

By signing below, I confirm that I have read and understood the terms of participation and my rights during and after the interview.

Date: _____

Name: _____

Signature: _____

University of Gothenburg
Universitetsplatsen 1, PO Box 100, SE 405 30 Gothenburg, Sweden
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Appendix 3 Interview guide

Personal Background:

How old are you?

Where were you born and where do you currently live?

What is your educational background?

Stage 1: Perceptions, Thoughts, and Feelings about Travel

When choosing a holiday or travel destination, what factors are most important to you?

How would you describe the role of travel in your life? Why is it important (or not) to you?

Are there specific aspects of travel you try to avoid? Why?

Are there any aspects of your travel habits that you consider problematic or less sustainable? If so, could you elaborate?

How do you perceive the potential impacts of your travel on the local environment and communities at your destinations? Could you give some examples?

Stage 2: Travel Habits and Behaviours

How often do you travel for leisure or vacation in a typical year?

Could you describe your usual travel habits, including daily commutes, vacations, and other types of travel?

What is your preferred mode of travel, and what influences this choice (e.g., cost, convenience, environmental concerns)?

Are there any barriers that prevent you from traveling in your preferred way (e.g., financial, time, accessibility)?

Have you ever felt that external circumstances (like time constraints, group references, or costs) influenced your travel choices? Could you give an example?

Stage 3: Reflections/Relations on Travel Choices and Sustainability

How do you personally reflect on the environmental impacts of your travel choices?

In what ways do you justify your travel habits, especially when it comes to sustainability?

What do you think would help young adults make more sustainable travel decisions?

Do you feel that your individual travel choices can contribute to broader sustainability efforts? Why or why not?

Stage 4: Influence of Education and Information on Sustainable Travel

Have you received any formal or informal education about sustainable travel? If so, could you describe it?

In what contexts (e.g., school, university, community programs, social media) have you encountered information about sustainable travel?

Have you independently sought information about sustainability in relation to travel? If yes, where or how?

How has the information or education you've received shaped the way you think about or approach your travel habits?

Closing questions

Is there anything else you would like to share regarding your travel habits and sustainability?

Do you have any suggestions for how education could better support sustainable travel behaviours?

