

# Visitors learning about nature: The case of 'Nationaal Park De Hoge Veluwe'

MSc Thesis



**Student:** Anouk van Gaans

**Student number:** 950720249050

**MSc programme:** Master of International Development

**Specialisation:** Inclusive Innovation, Communication and Development

**Course code:** CPT-80836

**Thesis date:** June 2019

**Supervisor:** Rico Lie

## Content page

1. Introduction .....	3
2. Theoretical framework .....	5
2.1 Environmental sustainability .....	5
2.1.1 Environmental attachment .....	6
2.1.2 Knowledge about nature .....	6
2.2 Environmental learning .....	7
2.2.1 Informal education .....	7
2.2.2 In the context of national parks .....	9
2.2.3 Designing of learning experiences in national parks .....	10
2.2.4 Different activities in national parks .....	11
2.3 Learning styles .....	11
2.3.1 Honey and Mumford's learning styles (1986) .....	12
2.4 Types of visitors .....	13
2.5 'Nationaal Park De Hoge Veluwe' .....	14
2.5.1 Activities in 'Nationaal Park De Hoge Veluwe' .....	15
2.6 The framework .....	15
3. Research question .....	17
4. Research methods & analysis .....	19
4.1 Exploration of activities .....	19
4.2 Learning Styles Questionnaire relating to activities .....	20
4.3 Short interviews about types of visitors .....	20
5. Results .....	22
5.1 Results of the observations .....	22
5.2 Results of the questionnaires .....	24
5.3 Results of the interviews .....	25
6. Discussion .....	28
6.1 Interpretation of the results .....	28
6.1.1 Different meaning of learning and knowledge .....	28
6.1.2 Informal learning .....	30

6.1.3 Learning about nature.....	31
6.1.4 Motivation of visiting .....	31
6.1.5 Characteristics and interests of visitors .....	32
6.2 Limitations of the research .....	33
6.2.1 Questionnaire .....	33
6.2.2 Data limits.....	33
7. Conclusion.....	35
7.1 The research question .....	35
7.2 Future research .....	35
References .....	37
8. Appendix.....	41
8.1 Questionnaire.....	41
8.2 Interview guidelines.....	44
8.3 Final codes of the interview coding.....	45

## 1. Introduction

At the moment, many people live away from nature and spend less time in natural areas (Schultz, 2002). They spend their time elsewhere, in built environments or online (Schultz, 2002). This means that they may lose their connection to nature, and feel less attached to natural areas and environment (Schultz, 2002; Ives, Abson, von Wehrden, Dorninger, Klaniacki & Fischer, 2018). Also, this could mean that some people might not have knowledge about the importance of nature (Schultz, 2002). This could lead to a decreased awareness of environmental issues and a lesser need for a sustainable way of life (Mayer & McPherson Frantz, 2004; Ives et al., 2018). However, if people would learn about nature, their knowledge about the importance of environmental sustainability could increase (Mayer & McPherson Frantz, 2004; Ives et al., 2018; Orams, 1997).

A place where people can learn about nature best is in nature itself (Orams, 1997). A natural area that is visited by tourists each year in large number is national park. Tourists can come to these sites of protected areas and join in various types of activities, such as walking to enjoy the scenery, hiking a trail or visiting the visitor's centre for information (Stichting het Nationaal Park de Hoge Veluwe, 2018a). The parks often also provide opportunities where tourists can learn about the natural areas that they are visiting. For example, they can join a guided tour with a forest ranger or watch a film in the visitor's centre (Stichting het Nationaal Park de Hoge Veluwe, 2018a). Through these activities, the visitors are able to gain more knowledge about natural, cultural and historical features of the parks (Weiler & Ham, 2001). Learning about nature could increase their interest in nature and make them see the importance of natural areas and why they need to be conserved (Ives et al., 2018).

The underlying problem of this thesis research is that if people spend less time in nature, their knowledge and awareness may have decreased and they might not live in an environmentally sustainable way. The assumption made is that activities in national parks can teach visitors about nature, and can therefore perhaps also play a role in teaching them about environmental sustainability. Therefore, the research objective here is to discover how visitors learn about nature through activities that they engage in 'Nationaal Park De Hoge Veluwe'.

However, as people are different, they also have different ways of learning (Falk, 2005) and will therefore learn about nature differently. To be able to research this, learning will be defined along the lines of the learning styles categorisation of Honey and Mumford (1986). This differentiates between the different preferences of people when they learn. This will be connected to activities that they participate in, such as cycling or visiting the Visitor's Centre. Data for this will be obtained by the use of questionnaires. Furthermore, a categorisation of visitors who visit 'de Hoge Veluwe' will be developed by performing interviews, that includes aspects such as motivation, prior knowledge about the park and

activities that they like to do, as this could influence learning. Then, it will be possible to connect the concepts and see how visitors learn about nature through activities in the case of 'Nationaal Park De Hoge Veluwe' in the Netherlands. Firstly, the thesis report will give a theoretical overview including the concepts of environmental sustainability, environmental learning, learning styles, types of visitors and national parks. Then, the research questions will be explained. Further, the methods to obtain will be discussed, followed by the results. Concluding, the discussion will give a more elaborate explanation of the results and the report will finish with a conclusion and recommendations for future research.

## 2. Theoretical framework

In this chapter a few concepts will be elaborated on, namely environmental sustainability, environmental learning, learning styles, types of visitors and national parks. Firstly, environmental sustainability will be explained related to a lack of knowledge about nature, followed by environmental learning. Then, this will be put into the context of national parks and learning in national parks. Learning styles and different types of visitors of a national park will be defined. Last, the case in which this will be researched will be explained, namely 'Nationaal Park De Hoge Veluwe'. These concepts relate to each other and are combined in a framework in chapter 3, figure 1. In this chapter, the concepts will be further explained and put into context.

### 2.1 Environmental sustainability

Human activity and behaviour are a few of the main reasons for the environmental degradation of the world (Ramkissoon, Weiler & Smith, 2012). However, it is important to preserve natural resources and environment (Mayer & McPherson Frantz, 2004; Goodland, 1995). By living and behaving in a sustainable way, nature could be protected. Sustainable behaviour can be defined as behaviour that meets the needs of the present, without compromising the ability of future generations to meet their own needs (Brundtland, 1987). It means that in order to preserve our planet, people need to behave in a way that social, economic and environmental needs can be met now and in the time coming.

However, in practice, this is seen to be difficult, as environmental needs are often forgotten or seem distant. Many aspects in society are formed in a way in which people are pushed to be inside. For example, people spend part of their days watching television, using their computer, spending time in shopping malls, schools or offices (Schultz, 2002). Areas of nature have given way for these built environments (Schultz, 2002). With the passing of the years, many people have moved from the countryside to the cities, for work and social life (Rewilding Europe, 2015, Schultz, 2002). Often, only the older generations or a segment of society stay in the more remote areas (Schultz, 2002). In all, less and less time is spent in natural areas (Mayer & McPherson Frantz, 2004).

A factor that would improve environmental sustainability is when people behave in an environmentally responsible way (Ramkissoon et al., 2012). However, as people are more separated from nature, many people do not have a feeling of attachment to nature anymore (Mayer & McPherson Frantz, 2004; Ives et al., 2019). If people have a lesser attachment to nature, it could give them a lesser inclination to protect nature and act in an environmentally friendly way (Mayer & McPherson Frantz, 2004, Ramkissoon et al., 2012). It is difficult to be concerned about something that you do not feel very much connected to. If the attachment could increase, they might be more tended towards being more environmentally friendly (Ives et al. 2018; Orams 1997).

### 2.1.1 Environmental attachment

Attachment or connection to nature is a multi-faceted concept. Ives et al. (2018) argue that it exists of five aspects. First, the material connection, where people consume natural goods, such as food. Second, the experiential connection, where people directly interact with nature. Third, the cognitive connection, in which knowledge about environment fits. Fourth, emotional connection, which is about feelings of attachment. Last, the philosophical connection, where a higher perspective or world view about nature is thought about. These five aspects that influence each other can be seen as why people connect to nature (Ives et al., 2018).

These aspects make it clear that it can be important for people to spend time in nature, before they can understand that they need to behave in an environmentally friendly way. A few examples will illustrate this. Relating to the experiential aspect, if people have more experiences in nature by for example spending more time in natural areas, their sense of belonging could increase (Mayer & McPherson Frantz, 2004). When people have positive experiences in nature, their emotional connection could develop. Furthermore, in natural areas or parks people can learn about nature and perhaps about the significance of natural areas to society. This is related to the cognitive aspect, and therefore learning could increase attachment to nature. Next, being in nature, having nice experiences and knowing about nature can advance to a philosophical connection to nature, where people will understand about the importance of conserving nature.

### 2.1.2 Knowledge about nature

When trying to increase environmentally sustainable behaviour, knowledge about nature is important (Ives et al., 2018). However, nature or environment can be a difficult subject, often related to science. Understanding of science is an issue that educators often face, as science can be a complicated subject (Brody & Tomkiewicz, 2002; Brody, 2005). In general, science is about subjects that people often need to have some basic knowledge about, such as medicine, environment, safety measures or transport. Many of the world's inventions that are used on a daily basis come from science, such as cars, buildings or computers. It is important to all, as it influences public policy, politics, economics and it requires public support (Brody, 2005). However, it can be argued that there is a gap to be found between the public and the world of science (Brody & Tomkiewicz, 2002). People can be reluctant to learn, or only want to know about the practical value of science (Brody & Tomkiewicz, 2002).

Education is a way to make people understand science, and make them see relevance in knowing about science (Brody, 2005). Already in primary school children are taught about basic issues such as mathematics and geography. Furthermore, secondary schools elaborate on this knowledge, and students are given the opportunity to study the science that they enjoy most. Learning is seen as the basis of these educational activities (Brody,

2005). The subject of environment is one that can also be taught, and that is important when relating it to changing people's behaviour towards nature and environment. However, environment is not one of the subjects taught in primary or secondary school, and learning about this often happens in other ways. Learning about environment is a specific type of learning, that will be elaborated on in the next part.

## 2.2 Environmental learning

When people develop knowledge about nature, environment or environmental sustainability it is referred to as environmental learning (Brody & Tomkiewicz, 2002; Brody, 2005, Orams, 1997, Rickinson, 2001; Lugg & Slattery, 2003). Following up on this, environmental education is education where people are taught about these subjects. It can be seen as different from other types of education (Brody, 2005). It can be argued that it is a type of education about the world, as it includes issues about nature and people. It has to regulate interest in nature, ecological needs as well as societal needs (Brody, 2005). It can also include people's identity and relationship with nature (Hacking, Barratt & Scott, 2007). It addresses experiences of people and is most meaningful when it takes place in specific situations (Brody, 2005). In the last 30 years, environmental education has been recognised and has become more important in educational policies and curriculum development initiatives (Rickinson, 2001). Usually, environmental education is given in short periods of time (Uzuna & Kelesa, 2012) and can be in a formal setting such as a school classroom or an informal setting such as a zoo or nature park (Hacking et al., 2007; Falk, 2005).

Sometimes environmental learning refers to a change in behaviour (Orams, 1997; Mayer & McPherson Frantz, 2004; Falk, 2005; Orams 1997). It could help people become more sensitive to nature and raise their environmental awareness (Uzuna & Kelesa, 2012). However, in this thesis research this is recognised and seen as an underlying assumption, but the change in behaviour is seen as a separate step in people's lives, and environmental learning is viewed as gaining more knowledge about the environment and perhaps about environmental sustainability (Brody, 2005). Changes in behaviour towards nature are seen as a next step, after people have learned about nature.

### 2.2.1 Informal education

Environmental education is often associated with informal learning (Brody, 2005). When teaching about environment, educators often choose to take students outside of a classroom and books, to informal settings (Brody, 2005). Examples of informal settings are museums, botanical gardens or nature areas (Brody, 2005). For years, students in primary and secondary education are taken on field trips (Rickinson, 2001). This to enable them to see the subjects of the knowledge that the learned in classes outside of the formal environment. An example from a research about national park Yellowstone in the USA can illustrate this, where the visitors are in direct contact with the subject at hand, namely the

geothermal activity that can be observed there (Brody & Tomkiewicz, 2002). Learning in informal settings has indicated that it can lead to meaningful learning and affective development (Brody, 2005). Knowledge that is gained by experiencing and using senses has been seen to last longer (Borsos, Patocskai & Boric, 2018). This opposed to many recent developments in education, where learning has become more digitalised and distanced.

Here, their knowledge is turned into practical views and insights. Research indicates that students remember what they learned on field trips even years after the visit, whereas information learned from books is easier forgotten (Dillon et al., 2006). Relating this to environmental education, learning outside of the classroom can be effective, as people can learn about nature, in nature (Orams, 1997). According to Orams (1997), interaction with nature is needed for learning about nature. Learning in nature relates to direct experience, personal and social learning and affective development (Brody, 2005). Furthermore, it is different than learning in a setting designed for learning, as for example a classroom with books (Brody & Tomkiewicz, 2002).

In informal learning, different aspects play a role than in formal learning, for example when students are required to listen to a teacher. Aspects such as curiosity (Orams, 1997), exploration and intrinsic motivation can play an important role in informal learning as well (Brody, 2005). Opportunities for learning may also be easier, as learners are more efficiently engaged in participation and social interactions (Brody, 2005). By interaction and discussion, people can make sense of the world around them, and it can therefore contribute to their learning (Brody, 2005). This could result into significant learning, which means that new attitudes or behaviours can be developed (Orams, 1997). As people are often in social circles when participating in informal learning, such as a visit to a museum, zoo or park, it can be natural and easy for them to immediately discuss what they have seen or experienced (Brody, 2005).

However, it could also pose challenges. People might not be paying attention to the aspects of the experience from which they can learn, such as an information sign (Orams, 1997). They could be distracted, not be listening to a guide or wander off (Orams, 1997). Moreover, learning experiences in informal settings are not always efficient (Dillon et al., 2006). People may focus on many different issues at the same time, where they are, how they feel, what their peers are doing. When working in a classroom situation, they might be better focused, as there are no distractions at hand. Another challenge that informal learning could face is the fact that the experiences are often short (Dillon et al., 2006). It is seen that when people are exposed to an issue for a longer period of time, they can remember and understand it better (Dillon et al., 2006). To illustrate with an example from formal education, repetition comes in handy when studying for an exam. However, experiences in informal learning vary in time. Field trips are often short or last only a day.

Also, people on holiday or day trips are often in a rush, and do not spend a lot of time in one place, or do not revisit the area.

In informal learning, often the assumption is made that learners have prior knowledge (Brody, 2005). Learning can be influenced greatly by the prior knowledge that the person has (Brody, 2005; Dillon et al., 2006). In informal learning, it is reasoned that people always have some ideas or frames of reference about the place or area that they visit (Brody & Tomkiewicz, 2002). This means that people have the opportunity to investigate new ideas and have new experiences, that could alter or add to their previous knowledge (Bass, 2012; Brody, 2005). Furthermore, whether or not a person is accustomed to go outside and learn something can influence their learning experience (Dillon et al., 2006). For example, when a student has never been on a field trip before, the impressions in general may be very influential and distracting (Dillon et al., 2006).

### 2.2.2 In the context of national parks

A place where informal learning takes place as well is in a national park. Furthermore, it is a good place, accessible for learning about the environment, as people spend their time in nature. A national park is an area protected for its environment. Protected areas cover about 13% of the Earth's total land (Le Saout, Hoffmann, Shi, Hughes, Bernard, Brooks, Bertzky, Butschart, Stuart, Badman, Rodrigues; 2013). A term often used to distinguish whether an area should become a protected area is the notion of irreplaceability. Areas often make sure to represent many different species that are threatened, or that are key in ensuring biodiversity (Le Saout et al., 2013). Protected areas can have different names, such as national parks as in the Yellowstone example (Riseth, 2007), nature parks, conservation areas or heritage parks (Le Saout et al., 2013). The first national park established was Yellowstone National Park in the United States in 1864 with the intention to store the area for recreational purposes (Ferrara, 2016). It became famous for the natural sights and attractions.

Issues of conservation and protection of species and nature became of significant interest (Kupper, Hasenöhrl, Stoöger, Veichtlbauer, Wöbse & Würflinger, 2014). Recognised by the Convention of Biological Diversity and IUCN guidelines, national parks and protected areas are often defined as "a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" (Atiquil Haq, 2016, pg. 3). In many areas around the world national parks were established, such as Sweden, the US, Switzerland and the Netherlands (Bricker, 2017; Kupper et al., 2014), and it became a well-known concept used to conserve natural areas. The practice that makes use of protected areas to a great extent is the tourism industry as visitors are attracted by natural areas (Scott, Jones & Konopek, 2007; Walpole & Goodwin, 2001).

In national parks, people have the opportunity to participate in many nature-related activities, such as walking, cycling or visiting the visitor's centre. It can be argued that education needs to be included in the concept of visiting nature and nature-based tourism (Madin & Fenton, 2004; Orams, 1997). Nature-based tourism is a categorisation of tourism where people visit natural areas. The focus is on the natural environment, which means that the feature of nature is important (Madin & Fenton, 2004). People who participate in nature-based tourism are often interested and concerned with nature (Madin & Fenton, 2004). This interest is a good basis for learning. Moreover, places that are visited are often fragile environments, with rare pieces of nature that are not found in other areas (Madin & Fenton, 2004). Therefore it is important that nature needs to be preserved, otherwise the tourists would not have a place to visit. Guidance about how the tourists need to behave in natural areas is often provided, for example by the use of signs telling visitors to stay on the paths or other. Information provided in the national parks is often also about the natural areas that are visited. In national parks people can learn something that they did not know beforehand, which means that it is an interesting place for research.

Education in natural areas can be taken further than merely giving guidance about behaviour. National parks provide good opportunities for environmental education (Madin & Fenton, 2004; Mayer & McPherson Frantz, 2004; Hacking, Barratt & Scott, 2007). For example, information given can also include subjects such as the significance of conserving the environment. National parks make outdoor learning experiences accessible, as many of the experience in national parks happen outside, an informal way of learning. Often possibilities for obtaining more information about the national park are offered here as well. For example, people can read leaflets, join guided tours or visit the visitor's centre. Through these educational activities, the tourists are able to gain more knowledge about natural, cultural and historical features of the parks (Weiler & Ham, 2001). Moreover, it can for example be part of the management strategy of nature-based activities or destinations (Orams, 1997). Moreover, educational strategies are often incorporated in the management of national parks (Orams, 1997).

### 2.2.3 Designing of learning experiences in national parks

Learning outside is different than learning in a setting designed for learning, as for example a classroom with books (Brody & Tomkiewicz, 2002). Designing of a learning experience can be a difficult task, but it is also an important one (Orams, 1997; Dillon et al., 2006). Often it is assumed that when people interact with nature, they will learn about nature or even about being environmentally responsible (Orams, 1997). Usually, it is not so easy teaching people something. What is offered to the people is what they will see, learn or understand (Dillon et al., 2006). This means that if the park's education programme does not seek out to change behaviour, visitors will not do so (Orams, 1997). For example, if the park wants to explicitly teach visitors about the importance of conservation, they need to

incorporate this into their programme. However, research has also indicated that over-structuring of learning does not work effectively (Dillon et al., 2006).

Designing a touristic learning experience has been seen to be difficult (Orams, 1997). Issues such as language barriers, age differences (Dillon et al., 2006), different educational backgrounds (Brody & Tomkiewicz, 2002) and culture pose challenges. Furthermore, visitors spend only a limited time in the park, and are not always particularly focused as there are many distractions to be found when you are in a national park (Orams, 1997). Therefore, when managing a national park and developing learning experiences for tourists, it is important that educators think about what they want to teach carefully (Orams, 1997).

#### 2.2.4 Different activities in national parks

Often, people participate in activities when they are in a national park. For example, they can go for a hike, bicycle ride, visit the visitor's centre, drive a scenic route and many more, depending on the possibilities of the park. Different ways of transferring knowledge can be used in the activities. For instance, some programmes use involvement, such as outdoor activities, which can be effective as it gives tourists the possibility to see how theoretical knowledge that they gained perhaps plays out in real life (Ballantyne & Packer, 2002). This way of informal learning is addressed in national parks, and also in zoos, botanical gardens and in museums (Shwartz, Cosquer, Jaillon, Prion, Julliard, Raymond, Simon & Prévot-Julliard, 2012). Furthermore, different education programmes make use of different information and are set up to teach tourists different things (Shwartz et al., 2012). For example, the expositions can teach people about the natural area and history, but also about the animals living in the area.

#### 2.3 Learning styles

Learning theories are often overlooked in environmental education, argues Brody (2005). This can be due to the fact that some educators assume that learning just happens as a logical outcome (Brody, 2005). It is important to research how people learn, also in the environmental education domain (Rickinson, 2001). An example from a Hong Kong secondary school field trip can illustrate this. Some students preferred the guided-tour that they followed in the morning, whereas others preferred the afternoon session where they could work together with their fellow students (Dillon et al., 2006).

So, to understand how people take in information that is provided in national parks, theories of learning need to be explored. An important view about learning and cognition is that someone's reality consists of many, diverse experiences and perceptions, developed throughout their life years (Brody, 2005). Every individual has different experiences, and has learned about other things throughout his life. Learning can be found in many forms, as people learn differently and learn about different parts in life in various ways. Learning is personal and contextual (Brown, 2004), and therefore different in every situation (Falk,

2005). Furthermore, learning is also influenced by dimensions such as motivation (Illeris, 2007; Falk, 2005) and prior knowledge (Brody, 2005; Dillon et al., 2006), as people are reminded about their previous experiences by to various factors or cues (Falk, 2005). For example, some people have learned other things than their peers before engaging in an (educational) activity, which means that they will have a different perception on things (Brown, 2004). Learning can also be an influence to behaviour and as something that has shaped a person (Honey, 2006).

### 2.3.1 Honey and Mumford's learning styles (1986)

Learning can be categorised into learning styles, as different people have different preferences of learning (Honey, 2006). Learning styles can be described as ways in which people approach learning tasks (Cassidy, 2004). The categorisation of learning styles that will be used in this thesis research is the simplified version of Kolb's Learning Cycle, developed by Honey and Mumford (1986) (Brown, 2004). The Learning Cycle used by Honey and Mumford (1986) (Honey; 2006), consists of four stages,

- firstly, having an experience;
- secondly, reviewing the experience;
- thirdly, concluding from the experience;
- fourthly, planning the next steps, and so forth back to the start.

It is possible to start anywhere in the cycle, as the stages follow up on each other (Honey, 2006). Some have a preference for certain phases in the cycle (Brown, 2004; Honey, 2006). People often have a learning style that makes some stages more attractive. Honey and Mumford (1986) make use of a categorisation of the stages and named them activists, reflectors, theorists and pragmatists, and made it more user-friendly (Brown, 2004). In table 1, the learning styles are explained further.

	Learn best from/when they	Learn least from/when they
<b>Activist style</b>	<ul style="list-style-type: none"> <li>- Activities that include new experiences/problems</li> <li>- Can engage in 'here and now' issues such as role-playing exercises</li> <li>- Can have visibility such as leading</li> <li>- Can be involved with other people</li> </ul>	<ul style="list-style-type: none"> <li>- Activities that require a passive role</li> <li>- Need to analyse, interpret data</li> <li>- Are required to work in solitary work such as reading</li> <li>- Need to pay attention to detail</li> </ul>
<b>Reflector style</b>	<ul style="list-style-type: none"> <li>- Activities that allow them to watch, observe, listen, think</li> <li>- Can investigate, assemble information</li> </ul>	<ul style="list-style-type: none"> <li>- Activities that force them to the front, such as leading</li> <li>- Situations that require action without planning</li> </ul>

	<ul style="list-style-type: none"> <li>- Can help exchange views in a structured experience</li> <li>- Can reach a deadline on their own time</li> </ul>	<ul style="list-style-type: none"> <li>- Do not have enough data to base conclusions on</li> </ul>
<b>Theorist style</b>	<ul style="list-style-type: none"> <li>- Activities that are part of a system or theory</li> <li>- Can methodologically explore relationships</li> <li>- Can analyse logic, reason and are required to understand complex situations</li> </ul>	<ul style="list-style-type: none"> <li>- Need to do something without context or purpose</li> <li>- Need to participate in situations without emotions</li> <li>- Are asked to decide without principles</li> <li>- Feel out of tune with other people</li> </ul>
<b>Pragmatist style</b>	<ul style="list-style-type: none"> <li>- Activities that have an obvious link between subject and opportunity of the job</li> <li>- See the practical advantages</li> <li>- Are given techniques that are practical to use</li> </ul>	<ul style="list-style-type: none"> <li>- Cannot immediately recognise the need to see the practical benefit</li> <li>- Do not have practice or clear guidelines</li> <li>- See that people are going around in circles</li> </ul>

*Table 1. Learning styles, based on Honey and Mumford (1986)*

To be able to discover the preferred learning style and thereby the type of learner, it is possible to take a test. This test is called the Learning Styles Questionnaire (LSQ) (Honey & Mumford, 1986). The test will give scores to each of the four learning styles, which could mean that people can have high or low scores to any of the styles, one does not exclude the other. It is then possible to see to which norm the scores are comparable to, and it is possible to see the preference of the individual on a scale from a very strong preference to a very low preference for a learning style. When the individual knows which learning style or learning styles they prefer, they can reflect on this and see where they can improve or adapt (Honey & Mumford, 1986; Honey, 2006). Kolb also stated that when people reflect on their learning, they develop a better understanding and apply it to new situations (Brown, 2004). Important to remember is that learning styles are not fixed, but adaptable (Honey, 2006).

## 2.4 Types of visitors

To be able to understand what visitors or tourists learn, they need to be investigated as well, as they are individuals with their own characteristics. Tourism can be divided in different segments, as for example mass tourism, cultural tourism, ecotourism or many other. The segment of the tourists that visits a national park belongs to the segment of nature-based tourism. It can be defined as a type of travel where people engage in nature-based activities and enjoy nature, such as going to the beach, taking a walk, but also visiting a national park (Madin & Fenton, 2004). Here, many visitors come to admire the scenery,

natural resources, wildlife and climate, however, each individual has a different purpose (Mehmetoglu, 2004). As these tourists visit the parks for various reasons and engage in different activities, they have different characteristics that could possibly influence how they take in information. The parks also provide possibilities for learning and through these educational activities, the tourists are able to gain more knowledge about natural, cultural and historical features of the parks (Weiler & Ham, 2001).

A few aspects that can influence learning are mentioned in Chapter 2.4 and have been discovered through conversations with experts from the park beforehand. These will be taken into account in the research when investigating which visitors visit the 'Nationaal Park De Hoge Veluwe', which are: prior knowledge, motivation, traveling alone/together and revisit of the park.

- Prior knowledge (Brody, 2005; Falk, 2005; Brody & Tomkiewicz, 2002; Dillon et al., 2006): Learning is influenced by what people have learned earlier on in their lives. Therefore, it is important to take this into account when characterising visitors.
- Motivation (Illeris, 2007; Falk, 2005): Learning is also influenced by their motivation for taking part in an activity. For example, they might be more interested to participate actively if they want to participate.
- Travelling alone/together (Brown, 2004; Brody, 2005): This can influence how people learn, as social relations can influence how people take in information and it can influence what they chose to do. They can talk about what they have seen and share experiences.
- Revisit of the park: This is related to prior knowledge, however, here the focus is on specifically revisiting the park 'de Hoge Veluwe'.

## 2.5 'Nationaal Park De Hoge Veluwe'

The area in which these concepts will be researched is in 'Nationaal Park De Hoge Veluwe'. In the Netherlands, protected areas have also been developed into national parks. The park 'De Hoge Veluwe' is situated in the area of Gelderland and established in 1935, after it had been in ownership of the Kröller-Müller family. The area is privately owned and gains most of its income through visitors. This means that the area is surrounded by gates and before entering, visitors must pay an entrance fee (Stichting het Nationaal Park de Hoge Veluwe; 2018a). In the Netherlands, it is the only park that asks for an entrance fee and does not allow entrance otherwise, which makes it unique in the region. A day card costs €9,50, and some separate activities require extra payment as well. The objective for choosing to research this park is related to this. When people decide to go to nature, they can either choose to go to the surrounding area of the park, which has similar natural features, or other natural areas, which do not require any payment and are free to access to anyone. They can also choose to visit 'Nationaal Park De Hoge Veluwe', which does require

payment. This means that the visitors will make a conscious decision to visit the park, and probably have a motivation to experience nature.

### 2.5.1 Activities in 'Nationaal Park De Hoge Veluwe'

The park is home to a variety of nature, consisting of heather, forest areas and sand dunes (Stichting het Nationaal Park de Hoge Veluwe; 2018a). Also, various animals and plants are present in the area, such as deer, foxes, insects, birds and many other. People can experience nature in various ways, for example they can cycle through the park on white bicycles that are free for use, they can hike the trails and also drive through the park by car. Activities are also organised, such as tours with forest rangers or a bird weekend, where more information about wildlife is provided (Stichting het Nationaal Park de Hoge Veluwe; 2018a) However, not only flora and fauna attract visitors to the park, but also the possibilities to learn about history and art. Inside the park, the Kröller-Muller museum is opened to visitors to view paintings of Van Gogh and other, as well as an architectural building the Jachthuis Sint Hubertus (Stichting het Nationaal Park de Hoge Veluwe; 2018a).

'Nationaal Park De Hoge Veluwe' offers many activities that can be educational as well. For example, it is possible to visit the Visitor's Centre where tourists are offered information about what they can do in their visit as well as educational information about nature and wildlife (Stichting het Nationaal Park de Hoge Veluwe; 2018a). Furthermore, a museum about nature can be visited there, called 'Museonder', which gives information and shows short films, for both adults and children. The national park also provides tours with a forest ranger, where visitors can join in a safari, bicycle ride or walk. Other activities are also available for booking, such as staying the night in the park, walks in which people search for birds and expositions (Stichting het Nationaal Park de Hoge Veluwe; 2018b). Every month, new agenda items are planned that visitors can join (Stichting het Nationaal Park de Hoge Veluwe; 2018b). Moreover, leaflets, books and an app are also at hand (Stichting het Nationaal Park de Hoge Veluwe; 2018a).

### 2.6 The framework

On the next page, a framework can be found, which visualises the relationship between the concepts discussed in the previous sections. This framework combines the five main concepts: environmental sustainability, environmental learning, learning styles, types of visitors and national parks. It also includes a few concepts that are important in the thesis research and have been mentioned in the previous sections as well. Firstly, nature is the focus of environmental sustainability and environmental sustainability includes knowledge about nature. Then, an efficient way to learn about the environment and improve knowledge about nature and environmental sustainability is through informal learning, which happens often outside of the classroom, in settings not designed for learning. A useful place for learning about nature is in a national park, in this thesis research 'Nationaal Park De Hoge Veluwe'. Here, visitors can participate in various activities. Each visitor has

different characteristics, and different learning styles. The framework already indicates where the sub-research questions fit, and these will be explained in chapter 3.

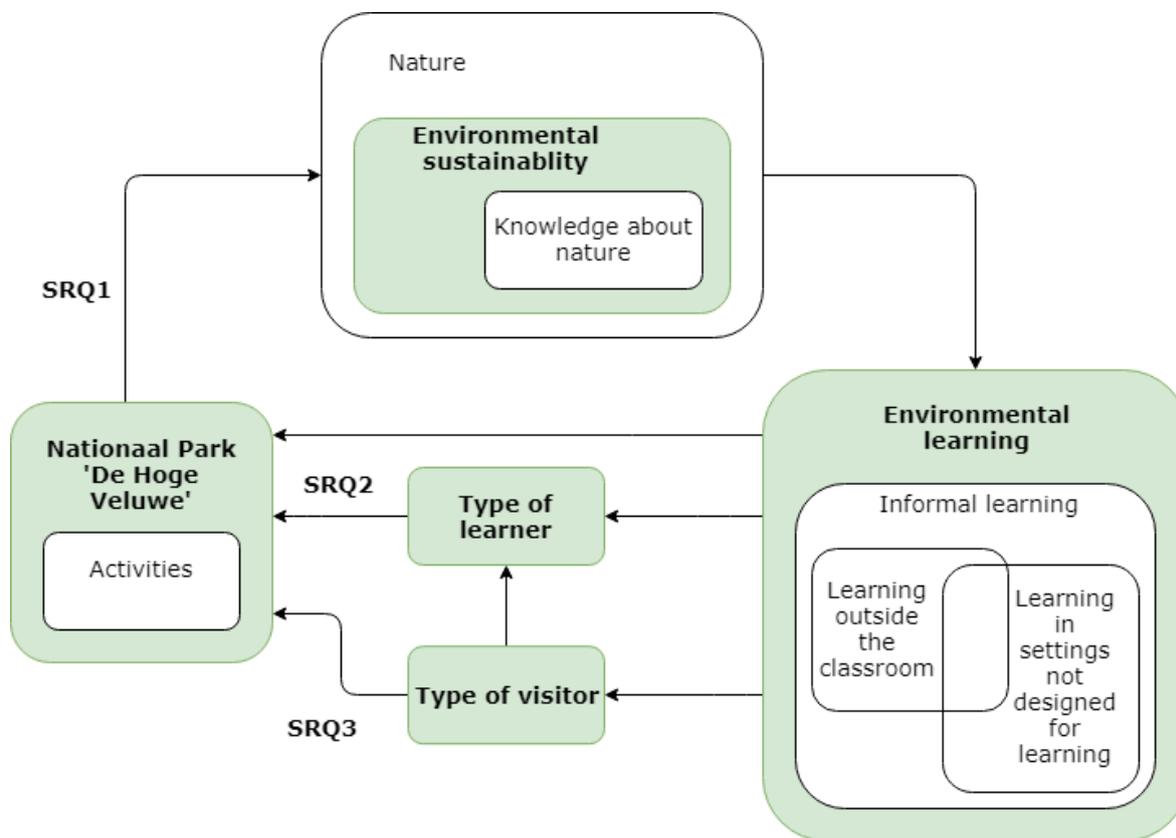


Figure 1. Visualisation of the theoretical framework

### 3. Research question

Following up on the theoretical framework, this research will focus on five concepts, namely environmental sustainability, environmental learning, learning styles, types of visitors and national parks. Theoretical exploration of these five concepts leads to the following research question (RQ):

- **RQ: How do visitors with different learning styles learn about nature through activities in 'Nationaal Park De Hoge Veluwe'?**

This will give answers the problem statement which is about people spending less time in nature, and thereby decreasing their knowledge and awareness about nature. The research objective here is to discover how visitors learn about nature through activities that they engage in in 'Nationaal Park De Hoge Veluwe' and will be examined by answering this question.

The main concepts have been put into a framework (Figure 1, CH2.6), to indicate the relationships between these more clearly. Here, on the next page, a simplification of the framework is given, only showing the concepts in combination with the sub-research questions. To guide these concepts, several sub-research questions (SRQ) have been formulated, that will explore the relations between the concepts better.

*SRQ1: In which activities of 'Nationaal Park De Hoge Veluwe' can visitors learn about nature?*

This will discover which activities are available in 'Nationaal Park De Hoge Veluwe' and which are related to nature. It is necessary to know this to be able to see if visitors can learn about nature and where. The relationship that will be explored here is between activities of 'Nationaal Park De Hoge Veluwe' and nature.

*SRQ2: Which type of learners engage in which activities in 'Nationaal Park De Hoge Veluwe'?*

Answers to this question will give information about the learning styles and activities that visitors participate in. It will be possible to see then if the learning styles influence the choice of activity. The relationship that will be explored here is between type of learner and activities of 'Nationaal Park De Hoge Veluwe'.

*SRQ3: Which type of visitors visit 'Nationaal Park De Hoge Veluwe'?*

Here, it will become evident which type of people visit the Nationaal Park. Some of the topics that will be discussed here are prior knowledge, motivation, traveling alone/together and revisit of the park. These topics are related to personal aspects of people, as opinions are. The relationship that will be explored here is between type of visitor and activities of 'Nationaal Park De Hoge Veluwe'.



Figure 2. Simplification of the theoretical framework

## 4. Research methods & analysis

In this chapter, the research methods that will be used in this thesis research will be explained, as well as the way in which the results will be analysed. First, a general overview will be given, followed by a more detailed explanation of the research methods. This will be connected to the sub-research questions, and how the use of these methods can help answer the questions.

To find answers to the research question, an exploratory case study approach was used (Baxter & Jack, 2008). The target group of the research included all visitors of the park that are 18 years or older. No distinction was made between nationalities, gender or any other demographic variables, as the results only needed to give an indication of the type of visitors of the park including other characteristics that will be analysed and compared. Research was conducted in the months of July and August of 2018. Important to keep in mind is that in summer different visitors visit the park than in winter or other seasons, therefore, results are about summer visitors. Another important factor is that only visitors who would visit the area of 'Centrum' were addressed, as this was the assigned area for research. In this area, the park restaurant, Visitor's Centre, Museonder, bicycle rental, playground and picnic tables are located. This means that for example people who go fishing might not come to the 'Centrum', so they might have been missed in this research. A convenient sampling method was used, as visitors were approached who were present at the day of research and who were willing to cooperate.

Research was done in three steps to be able to find answers to the RQ and SRQs. Firstly, an exploration of activities was done. Secondly, a questionnaire about Learning Styles and activities was handed out. Thirdly, short interviews with visitors of the park were held.

### 4.1 Exploration of activities

To be able answer the first sub-research question (*SRQ1: In which activities of 'Nationaal Park De Hoge Veluwe' can visitors learn about nature?*) and to formulate a questionnaire and interview guideline, it was necessary to have an overview of available activities in the national park. One afternoon was spent on visiting the park and familiarising with the area. This was done to find an indication of activities that were present. Furthermore, then it would be possible for the researcher to answer questions about certain activities when needed during the questionnaires or interviews. Then, a list was made of activities, according to activities that were seen and that were listed online. Categories of activities were made according to the way they were categorised online (Stichting het Nationaal Park de Hoge Veluwe, 2018b), as visitors might have looked at the website before they were visiting the park. Then, they might recognise the categories when filling in the questionnaire, which could make it easier for them. Furthermore, activities were categorised to whether or not they were related to nature and where it might be possible

to learn about nature. For example, the Kröller-Müller is a museum with paintings, however, not all are related to nature.

#### 4.2 Learning Styles Questionnaire relating to activities

To be able to answer the second sub-research question (*SRQ2: Which type of learners engage in which activities in 'Nationaal Park De Hoge Veluwe'?*), a questionnaire was developed that could provide quantitative data to indicate the learning styles of the visitors of the park and if this would influence the activities that they engage in.

The questionnaire started with the 40-item version of the Learning Styles Questionnaire developed by Mumford and Honey (Honey, 2006), to be able to determine the learning style of the respondent. The original version of the questionnaire consisted of 80-items, and in 2000, Honey (2006) produced the shorter 40-item version. This was done as there was a request for a simplified version less focused on management functions as the first one (Honey, 2006). Also, it is more ideal as an introduction to people who have not thought about the way they learn before (Honey & Mumford, 2000). The shorter version seemed more appropriate to use in this thesis research, as it would be easier to fill in and would take less time (Honey & Mumford, 2000). Therefore, people were probably more inclined to fill in the questionnaire than they would have been if they would have seen a list of 80 items and many sheets of paper.

The second part of the questionnaire existed of the list of activities. This list consisted of the activities found in the first phase of the data collection. Respondents were asked to indicate which activities they participated in. Also, for some activities such as walking or cycling, they were asked to indicate how much time they spent doing the activity and whether or not they joined in a tour or a marked route. For every activity they also had to indicate to what extent they enjoyed it, on a scale from 1-3 indicated by smileys. Both an English and a Dutch version were made. The questionnaire can be found in Appendix 8.2.

Analysis of the questionnaire was done by statistical analysis in the programme SPSS. The question that needed to be answered was which type of learner engages in which activity. Type of learner is a continuous variable, as people gain scores for every type on a level from 0-10. Which activity is a categorical variable, as people can either participate or not. They can also participate in multiple activities. Following these variables, a binary logistics regression should be run. This to be able to see if significant relations between learning styles and activities done could be seen.

#### 4.3 Short interviews about types of visitors

The last part of the data collection existed of short interviews to be able to answer the third research question (*SRQ3: Which type of visitors visit 'Nationaal Park De Hoge Veluwe'?*). The output gave insights about what people learn about nature, answering part of the main research question. The interviews were set up by a general interview guide approach

(Halcomb & Davidson, 2006), as there was a need to steer the interview in a certain direction, however, it was also important that people were free to talk about what they liked. The beginning of the interviews was about general issues, such as where people came from, what they were doing, were they travelling alone or together, whether they were on a day trip and other similar topics. Next, the interviews were more focused to the topics of the literature review, namely motivation, prior knowledge, revisit of the park and learning. The interview guidelines can be found in Appendix 8.3.

The interviews have not been recorded, as it was assumed that people were more inclined to join in a short conversation when not recorded. Therefore, the interviews have been written down as field notes (Emerson, Fretz & Shaw, 1995). These field notes are analysed by the use of coding strategies. Coding can be done in various ways (Benaquisto, 2008). When analysing a qualitative research, codes and themes usually appear from the raw data collected, such as interview transcripts or field notes. On the other hand, in a quantitative research, codes and themes can be created before data collection determined by the theory or literature (Benaquisto, 2008). As this research is a combination of qualitative and quantitative data, both methods are used. Furthermore, the interviews were set up by a general interview guide approach (Halcomb & Davidson, 2006) which means that the interviews had a direction of conversation, aiming to find answers to certain questions. Therefore, it is important that these are formulated into codes, in order to analyse the data correctly.

Different coding strategies can be used to make the codes (Benaquisto, 2008). In vivo codes are codes that appear directly from the data, looking at what interviewees have said. Social sciences constructs are codes that the researcher has created before the data collection looking at what the literature indicates (Benaquisto, 2008). Both strategies are used here. To do this, analysis was done in two steps, namely by using open coding and focused coding (Benaquisto, 2008). In open coding, the researcher keeps an open mind while reading the data, searching for broad categories. In this step, the social sciences constructs can be used already. When rereading, the researcher can see new codes, connections or similarities. After, focused coding takes place, where broad categories can be reviewed and split up into more specific codes. Still, new broad codes can be found, as well as new specific codes. It is important to keep in mind that it is a dynamic, changing process (Benaquisto, 2008). The social sciences constructs used in this research are the following: prior knowledge, motivation, traveling alone/together, revisit of the park and activities done. These were derived from the literature beforehand (Chapter 3). The list of final codes can be found in Appendix 8.4.

## 5. Results

In this chapter, results of the analysed data per method of research are displayed. Within explanations of the results, answers will be given to the sub-research questions. Then, in chapter 6, an interpretation and discussion of these results will be given.

### 5.1 Results of the observations

The observations lead to a list of activities. The activities were formulated as followed: cycling through the park; walking through the park; visiting the Visitor's Centre; visiting an exposition; Kröller-Müller Museum; Jachthuis St. Hubertus; Museonder; children/family activities; horseback riding; fishing; camping and other. Here, a short explanation of the activities is given:

- *Cycling through the park*; In 'Nationaal Park De Hoge Veluwe' visitors can take a white bicycle free of charge and cycle through the park. It is possible to drop off and take this bicycle from any of the bicycle stands in the park. The park offers many bicycle paths, which means that people can cycle to any of the places of visit. Several routes are also set up that visitors can follow and maps can be found in the Visitor's Centre. It is also possible to take own bicycles.
- *Walking through the park*; The park offers many walking or hiking paths, and visitors can go for long or short walks through the forest or on the plains. Routes are offered as well, indicated by signs and on maps that can be taken from the Visitor's Centre.
- *Visiting the Visitor's Centre*; The Visitor's Centre is the main place for visitors to find information about the park. The employees at the counter are there to answer people's questions and to sell tickets to activities such as a visit to Jachthuis St. Hubertus or a guided tour. The Centre also offers the possibility to gain more knowledge about nature, history and culture of the park, by big signs with information and constructed fake trees and stuffed animals. Also, every hour a short film is displayed.
- *Visiting an exposition*; In the Visitor's Centre, different expositions are shown throughout the year. This summer, the exposition 'Dead Wood' by Peter Ampt was shown, with varying photographs of dead wood at the Veluwe. It was also possible to buy these photographs.
- *Kröller-Müller Museum*; In this museum, many paintings of Vincent van Gogh are displayed. Also other paintings are displayed in different expositions that vary throughout the year. A restaurant can also be found in the museum. The museum requires an entrance ticket, and this ticket also gives people access to the Sculpture Garden nearby, where sculptures of artists are set up in the forest.
- *Jachthuis St. Hubertus*; The Jachthuis is a building that used to be a guesthouse for acquaintances of the Kröller-Müller family. Many of their guests were hunters and together they would go on hunts in the park. Nowadays, it is a monument that is

open for visitors when they take a guided tour where they receive information about the history of the building. It is situated in the North of the Park on an open field with a large pond in front.

- *Museonder*; This museum is situated underground, and it is possible to enter via the Visitor's Centre. Here, visitors can learn about what happens in the ground at the Veluwe, such as lives of worms or soil issues. It is built in an interactive way, and also shows a movie about the history of the nature at the Veluwe. The museum does not require an extra entrance fee.
- *Children/Family activities*; The Park provides some activities specifically aimed at children and families. For example, families can take part in the 'Nature Game', which is an adventure route guided by an iPad that parents can rent at the Visitor's Centre. Furthermore, in the summer of 2018, an activity called the 'Nature Detective' often took place. Here, a park ranger had set up a table in front of the Visitor's Centre displaying different sorts of wildlife related things, such as feathers, skulls, or pictures. Children could participate in various exercises such as matching the right feather to the right type of bird, and then they could get a diploma. Also, an often visited place for families was the playground, located near the Visitor's Centre and restaurant.
- *Horseback riding*; In the Park, many horseback riding trails are located. Visitors can take their own horse, and make use of these trails. They have to pay an entrance fee for the horse as well.
- *Fishing*; It is possible to fish in the pond at the Jachthuis. A fishing permit for this is needed, which can be collected at the Visitor's Centre.
- *Camping*; Inside the Park, near the entrance of Hoenderloo, a camp site is located.

Not all activities are specifically designed to teach visitors about nature or have the focus on nature. Answering 'SRQ1: In which activities of 'Nationaal Park De Hoge Veluwe' can visitors learn about nature?', the activities that are seen as related to nature and where it might be possible to learn about nature are:

- Cycling through the park
- Walking through the park
- Visiting the Visitor's Centre
- Visiting an exposition
- Visiting Museonder
- Some of the children/family activities (such as Nature Game and Nature Detective, but not the playground)
- Horseback riding
- Fishing
- Camping

## 5.2 Results of the questionnaires

In total, 116 questionnaires were collected. In the Appendix 8.2, the questionnaire can be found. After running a binary logistics regression in SPSS, a few results were produced that gave indications about the relationship between type of learner and activities done. Table 2 gives an overview of this.

The analysis showed that none of the learning styles influenced the choice of activity, as no significant predictors were found. Predictors below 0.05 are seen as significant, however, all values found in this study were higher. In table 2, the predictor values are displayed in the last two columns. This means that when answering '*SRQ2: Which type of learners engage in which activities in 'Nationaal Park De Hoge Veluwe'?*', that no relation can be found between type of learner and activity participated in.

Furthermore, the results do give some information about the number of people that participate in which activity. These can be divided into subcategories from A to E, indicating the frequency in which activities were done. If the activities were done by roughly the same percentage of people, the activities fit together in a category. Firstly, the A-category can be developed, including activities that have been done by the majority of the people. This category includes the activity 'cycling through the park', as 85% of the respondents did this. The B-category includes the activity 'visiting the Visitor's Centre', as 47% participated in this. The C-category includes the activities 'walking through the park', 'visiting the Kröller-Müller museum', 'children's/family activities' and 'visiting the Museonder', as these activities were visited by around 25 to 30% of the visitors. The D-category includes the activities 'visiting an exposition', 'visiting Jachthuis St. Hubertus' and 'camping', which were done by 5 to 10% of the respondents. 'Fishing' and 'horseback riding' belong to the E-category, as none of the respondents participated in this. This shows that the respondents had a clear preference of activities, as the majority cycled through the park and half of the people visited the Visitor's Centre.

Activity	Percentage of visitors	ABCD-category	Learning styles			
			Predictor Activist	Predictor Reflector	Predictor Theorist	Predictor Pragmatist
<b>Cycling through the park</b>	85,5%	A	0,741	0,681	0,971	0,097
<b>Walking through the park</b>	29,9%	C	0,181	0,501	0,920	0,980
<b>Visiting an exposition</b>	6,8%	D	0,479	0,311	0,452	0,949
<b>Visitor's Centre</b>	47,1%	B	0,736	0,295	0,120	0,876
<b>Kröller-Möller Museum</b>	22,2%	C	0,950	0,472	0,305	0,368
<b>Jachthuis St. Hubertus</b>	11.1%	D	0,391	0,560	0,346	0,853
<b>Museonder</b>	26,5%	C	0,938	0,358	0,297	0,951
<b>Children/Family activities</b>	30,8%	C	0,468	0,636	0,779	0,703
<b>Camping</b>	5,1%	D	0,264	0,289	0,697	0,160
<b>Fishing</b>	0%	E	N/A	N/A	N/A	N/A
<b>Horseback riding</b>	0%	E	N/A	N/A	N/A	N/A

Table 2. Results of the questionnaires

### 5.3 Results of the interviews

In total, 29 interviews of around five to ten minutes have taken place. Analysis of the interviews lead to many different codes and interesting findings. The majority of the interviewees was Dutch, with the exception of two British and one Belgian interviewee. Most of the interviewees (26) travelled together, either in groups of families or in pairs, and three interviewees travelled alone. Moreover, 16 of the interviewees had been to the national park before. Varying reasons of motivation for visiting the Park were given. 12 respondents indicated that they decided to come to see nature. Four came to cycle, whereas one indicated to come for walking and three to see art. Other reasons mentioned once were that in the park it was different than at home, to relax and to get away for the day. Four respondents had a Guardian Card and two won a free entrance ticket.

Then, the topic of learning was addressed. Many diverse answers and thoughts were given, but some were comparable. 13 people indicated that they did not learn anything while in the park. Six people indicated that they did. One of them learned something because her husband talked about nature when visiting the Park, another learned something in the Nature Game, another in the Visitor's Centre and another in the Museonder. Two indicated that they did learn something, but perhaps unconsciously as they did not know exactly what anymore. Also, 13 respondents indicated that they did not visit the park with the intention to learn. Seven people said that it is interesting or fun to learn something, and four mentioned that it is always possible for people to learn. One respondent said that she would like to learn something here, and hoped she would learn about Van Gogh and animals. Eight respondents addressed the opportunities for learning in the park, such as the Visitor's Centre and the Museonder. Eight respondents had prior knowledge about nature and the park, and no one indicated that they did not have any knowledge. Some people mentioned they were often to be found in nature, had seen almost everything but could never see enough. Lastly, seven respondents indicated that their children learned something in the park or when joining activities such as the Nature Detective.

Furthermore, some interesting remarks were made about learning. One couple stated that they know a lot already, but also that it is not very important to them to know much, "all trees are green". Someone else said that they believe that you will always see something new, even if you do not intend to learn. Others remarked interesting things that they learned. For example, someone learned that the white bicycles are convenient and someone else mentioned that some dead trees were taken out of the forest since last time that they visited. Another respondent stated that their initial ideas about the national park were confirmed by their visit, as they thought it would be a quiet, peaceful and spacious. One father talked specifically about how his children could learn during the visit. He said that learning is mostly related to experience and that it is better to see something for yourself than to learn from a book. The Visitor's Centre is a useful place for learning, as here, the children can see for example how large the animals are in real life. A final interesting remark was made by a woman who stated that she cannot learn anything anymore because she is an adult.

The results of the interviews about learning answer the research question: '*SRQ3: Which type of visitors visit 'Nationaal Park De Hoge Veluwe'?*', which explores the relationship between activities participated in and visitors. As this question is related to opinions of people, not one conclusive answer is given. Various people have different judgments, feelings and thoughts, which means that it should be taken into account that results are mainly true for this group of people, in this period of time. Main conclusions that can be drawn are that the interviewed visitors were not primarily motivated or interested in learning, but in general they were visitors who wanted to enjoy nature. Their interest in nature was expressed often, as they would talk about the forest and being outside. Their

opinion about learning when participating in activities was not explicitly declared, but as mentioned above, visitors talked about their point of view. The different aspects addressed in the interviews, prior knowledge, motivation of visiting, revisit of the park and travelling alone or together will be elaborated upon in the discussion (6.1.4 and 6.1.5).

## 6. Discussion

In this section, the interpretation of the results will be given (CH6.1). Also, limitations of the research will be discussed (CH6.2).

### 6.1 Interpretation of the results

In this section, the fact that the results of the questionnaire analysis indicated that none of the learning styles significantly predicted the choice of activity, will be discussed first. This because it leads to several insights, namely that learning might have a different meaning to people than initially expected. After this, the connection to learning and nature will be elaborated on. Thirdly, as people do not choose activities based on learning style, it means that visitors are motivated by other interests or factors. This will be discussed as well. Lastly, the characteristics of visitors discovered in the interviews will be discussed.

#### 6.1.1 Different meaning of learning and knowledge

Due to the results of the questionnaire analysis, new literature and theories about knowledge and forms of learning will be taken into account. In the literature review of the thesis, the focus is mainly on learning about what people do not know yet. This implies gaining knowledge through teaching activities such as high school education, viewing a documentary, reading information or other where people process new information and remember this. In many other researches, the learning styles are viewed and used with this perspective of learning new things as well (Yousef, 2018; Brown, 2004; Cassidy, 2004; Illeris, 2007; Hergenbahn & Olson, 2005).

However, learning can mean other things as well, as learning is a part of everyday life that comes in various forms. For example, learning from education and teaching is a different way of learning, than learning from feedbacks in the environment which can lead to changes in cognitions (Leeuwis, 2004). In the literature review, the focus of learning was mainly on educational learning. However, as the learning styles are no significant predictors and as the visitors indicated that learning to learn something new might not be very important to them, it might be useful to look at learning in a different way. In retrospect, learning about nature and becoming more aware of nature might be more related to different types of learning or knowledge. A few theories about knowledge and learning will be explored here, namely transformational learning, experiential learning and unconscious learning.

##### 6.1.1.1 Transformational learning

To start with, a form of learning that can be of importance when researching adult learners is transformational learning. Transformational learning refers to the fact that people, especially adults, already have prior experiences, and that they need to transform their knowledge in order to learn something new (Bass, 2012). It holds that everyone has a frame of reference in which they view the world, and if conflicts occur within this frame of

reference, for example by learning or seeing something new, the frame of reference needs to be adjusted (Bass, 2012). This can be difficult and it can take energy. This is in line with results from this research as it could explain why respondents of the interviews are not very eager to learn something new and why learning styles do not have a significance. Many indicated that they already have enough knowledge, so this could mean that they would like to keep the same frame of reference, and keep away from conflicts within this frame of reference. Furthermore, often was mentioned that there were good opportunities for children to learn. They do not have as much experience and knowledge as adults yet, so transformational learning occurs less and their frame of reference would be easier to change. On the other hand, an existing frame of reference related to the new information, can help form a new frame of reference. This can also be referred to as prior knowledge (Brody, 2005). If a person has some knowledge about an issue, they might recognise some aspects of it and that could make new knowledge a good fit, and make them understand an issue better (Brody, 2005). This would also fit the results of the research, as some visitors who came to the park frequently indicated that they recognised many different species of plants and could also recognise the ones they did not know yet.

#### *6.1.1.2 Experiential learning*

Experiential learning is another form of learning that can to be taken into account. A theory used by Kolb & Kolb (2005) about education and learning is the Experiential Learning Theory. Experiential learning is a form of learning where people learn from their own experience and draw conclusions based on their own successes or failures (Kolb & Kolb, 2005). It is also referred to as 'discovery learning' or 'learning by doing' (Kolb & Kolb, 2005). It can be seen as similar to transformational learning, however, a transformation may not always be necessary (Bass, 2012). This would mean that if the visitors see something in the park that they have not seen before, the experience could be added or connected to prior experiences. For example, people might know that an animal such as a mouflon exists, and realise that it lives at the Veluwe and make this connection in their knowledge. Furthermore, they could have a positive experience being in nature and take this memory as a new, additional one, however, they could refer to it as something else than learning. An example from the results that can illustrate this as well is that a visitor said that the white bicycles are very convenient to use. He had the knowledge beforehand that the white bicycles were available, and now his knowledge is changed to that the white bicycles are also convenient.

#### *6.1.1.3 Learning to discover something new*

A few visitors mentioned that they did learn something new in the way learning was viewed in the beginning of the research. For example, a visitor mentioned that he learned something about farming and the land of the Veluwe in the Visitor's Centre. Also, another visitor talked about his experiences in the Visitor's Centre as well. He learned that mice hibernate and that the Veluwe is located at 30 metres above sea level. These experiences

indicate that it is possible that people learn new things and add new memories to their previous experiences when visiting the Park. Relating this to the theory of transformational learning, it means that these people might have changed their frame of reference. For example, the person who learned about the sea level, might have had a different idea of where he was located in terms of altitude, which could have a different frame of reference.

#### *6.1.1.4 (Un)conscious learning*

Moreover, some people mentioned that they did learn something, however, unconsciously, as they could not recall what it was exactly. In literature, the difference between unconscious and conscious learning has been discussed as well. Unconscious knowledge can best be described as knowledge without being aware of the knowledge (Dienes, 2012), an example of this would be that people know how to walk but do not know how to describe the mechanics that are used by the body (French & Runger, 2003). Unconscious learning is also referred to as implicit learning (Dienes, 2012). Exposure to things in the environment can be picked up unintentionally (French & Runger, 2003). This could correspond to the answers of the visitors who said that they probably did learn something, however not consciously. When walking or cycling through the forest people have many impressions, but usually do not stop to view each tree or sight explicitly, as they are moving. Implicit learning requires less energy and concentration than conscious learning does (Dienes, 2012). Researching implicit learning has proven to be difficult (Dienes, 2012, French & Runger, 2003), as it is complex, however, it may be more important in learning about nature.

#### **6.1.2 Informal learning**

A way of learning that was discussed in Chapter 3 was informal learning, where people can learn outside of the classroom, in settings often not designed specifically for learning. Nationaal park 'De Hoge Veluwe' offered a good place for informal learning (Rickinson, 2001; Brody, 2005). Visitors could participate in various activities with informal settings, such as walks that would go through the forest, a visit to the interactive museum Museonder or a visit to the Visitor's centre. Here, the visitors could have learning experiences in a different way than in for example a classroom. To illustrate, one respondent mentioned that she often asked her husband if she did not recognise something. Furthermore, one respondent of the interviews also talked about the learning experiences of his children. He mentioned that his children continually asked questions when they would see something that they did not recognise. On guided tours, visitors were also able to do this. This means that they could see directly what they had learned.

Furthermore, many of the activities that the park offered had a focus on experience. For instance, in the activity 'Nature detective', children could talk to a forest ranger and see and touch feathers, skulls or bones of animals. Here, aspects such as curiosity (Orams, 1997) and exploration (Brody, 2005) were involved, which can play an important role in

learning. Moreover, the children could discuss with their peers what they thought and saw, which can also contribute to learning (Brody, 2005). Similarly, informal experiences could play an important role in other activities, such as walking or cycling through the park. Visitors did not have the possibility to ask question to a forest ranger, but they could often discuss their experiences with their companions and use social interaction (Brody, 2005). Also, exploration (Brody, 2005) and curiosity (Orams, 1997) could play an important role, as the visitors could do exactly what they wanted and go where they wanted to go.

### 6.1.3 Learning about nature

The main question of the research was to discover how visitors learn about nature through the activities that they participate in. Some of the activities that were seen as related to nature were visited by many people, namely, cycling through the park (85,5%), walking through the park (29,9%), visiting the Visitor's Centre (47,1%), visiting an exposition (6,8%), Museonder (26,5%) and some of the children/family activities (30,8%). However, people did not indicate that they learned a lot, so there is not a lot of data available to be able to draw concise conclusions about this question. However, a few people did learn. Some learned something about practicalities of the park, such as the convenience of the white bicycles, or the fact that construction work was in progress and others learned things related to nature, such as the hibernation of mice or the fact that the Veluwe also consists of heather areas. Here, it is possible to see the difference between topics of what people learn.

### 6.1.4 Motivation of visiting

As the learning styles were not the main predictor for people choosing activities, other motivations can be important. In the interviews, visitors were asked to talk about their motivation to visit. In general, many people came to see nature or to be in nature. This is a main feature in many of the things to do in the park, for instance cycling, walking, driving through the park or having a picnic. This can indicate that people decide to participate in activities that are related to nature. Also, the motivation of visiting the Kröller-Müller museum and seeing the art was mentioned as well. A few other things were mentioned as well, such as to relax and to be away from home. These motivational factors can be attributed to leisure, which can mean that people mainly visit the park for recreational reasons. Moreover, visitors also mentioned that they did not have the intention to learn when they decided to visit the park. This can confirm the results of the questionnaire, as they did not view the activities as a learning opportunity. Some people also mentioned that they are open to learning, so perhaps if they know about these possibilities now, they might view it differently in the future.

Looking back at the process of research, it might have been better to also specifically ask why people joined in certain activities, as this might have given a better indication of their preferences. To the question 'Why did you decide to visit?', answers such as 'I want to cycle

or visit the Visitor's Centre', were expected, however, people answered more generally to why they visited the park. It might also then have been easier to connect learning to the motivations to visit, as this might have been mentioned for example when people would explain why they would visit the Visitor's Centre or join in a guided tour. However, here, the aim of the interviews was to let the visitors talk freely about what they wanted.

#### 6.1.5 Characteristics and interests of visitors

In the interviews, visitors were asked multiple questions related to learning and the type of visitor that they are. They were asked to talk about whether they were travelling alone or together, revisit of the park, their prior knowledge of nature and motivation to visit. The last one is discussed in the previous section, and the rest will be discussed here.

##### *6.1.5.1 Travelling alone or together*

In general, people travelled with someone else, either in pairs, groups or families (26 out of 29). This could mean that not everyone was completely free to choose what they actually wanted to do, as often people make decisions together. Multiple options are possible, as it could be true that they did choose their preferred option as more people might enjoy it. Moreover, it could have been the preferred choice of the interviewee and the other people had to adapt. For example, one respondent of the questionnaires talked about how she enjoyed the cycling trip and that the rest of her family did not because it was too long. If people do not completely enjoy the choice of activity, they might be less interested in it (Illeris, 2007). However, the majority of the people answered that they enjoyed the activities they participated in. If it was not their first preferred activity to take part in, it could also mean that the visitors were less inclined to be active in the activity. For example, they might learn less as well, as some activities, such as the Visitor's Centre or Museonder require active participation, as signs have to be read (Illeris, 2007). Many people indicated that they did not learn much, which could be possible that it is due to this factor.

##### *6.1.5.2 Revisit of the park and prior knowledge*

Next, a little more than half of the respondents had been to the park before this visit. This indicates that they enjoyed their visit before enough to come back to the park. It also indicates that these people already have a memory of the park, which could influence their experience today (Bass, 2012; Brody, 2005; Falk, 2005; Brown, 2004), and that the people who have not been there before do not. The knowledge that they have can be transformed because of the new visit. This could be knowledge about what they can do in the park and what they know about the nature in the park. Following up on this, about one third of the visitors said that they had quite some prior knowledge about nature already. This is less than people who said to have been to the Park before. There were also visitors that said that they had knowledge about nature but had not been to the Park before.

As with the revisiting of the park, it indicates that the people who have prior knowledge already have a memory and idea of nature. They could compare, analyse and look at the

nature and information that they see in different ways that other people would, as they have a different frame of reference (Bass, 2012). Also, they could recognise aspects from previous experience, and perhaps understand their new experiences more easily than visitors with no prior knowledge (Brody, 2005). Transforming their knowledge could take less energy (Bass, 2012). Some of the people who had knowledge indicated that it is always fun to learn something new and that people can always learn something, however, others said that they had no need to learn anymore, because they knew enough already. This is interesting as well, as it shows that through their previous experiences, some people do think they can attain different, new points of view and others do not.

## 6.2 Limitations of the research

In this part, some limitations of the research will be addressed. One limitation has been discussed in CH6.1.4, about the fact that the questions of the interviews could have had a different approach.

### 6.2.1 Questionnaire

Regarding the questionnaire, confusion would exist over the difference between the Visitor's Centre and Museonder, as well as the expositions, Kröller-Müller museum and Museonder. This could have been indicated more clearly on the questionnaire. Furthermore, some people had difficulties filling in the questionnaire. People who did not have a lot of knowledge of English did not want to participate, as they said their English was not good enough to do so. Therefore, mainly Dutch questionnaires have been filled in. Also, some elderly people thought the questionnaire was too long and had small letters. This was difficult to change, as the Learning Styles Questionnaire consisted of 40-items, which were set, or else the outcomes would not be correct. However, perhaps it would have been better to enlarge the letters and use more pages.

When filling in the questionnaires, people do not always seem to be honest as sometimes they would informally talk a bit about their trip, and say different things than what they would write down. For instance, in one group, five people wanted to fill in the questionnaire. They talked about the fact that they had not been there for a long time yet, and most of them filled in they cycled for 30 min, and one person of the group filled in that they cycled for over two hours. It is difficult to address this issue, as it is filled in anonymously, which means that the researcher usually does not know what the people filled in.

### 6.2.2 Data limits

Another limitation of the research is that not enough data about people who did actually learn something was collected. This is also part of the results, as one of the main findings was that people might learn less when they visit a national park than initially expected, however, this does make it more complex to be able to draw conclusions about what they did learn. As perhaps people learned more in an unconscious way than expected, a

different research method might have been needed. The methods used in this research were focused on learning where people learn something that they do not know yet. If a different focus was chosen, it might have been easier to find out what they learned about nature. Furthermore, if more data could be gathered about a different type of learning, another step could then have been more easily made to the topic of environmental sustainability, and what this means to the visitors and if this has changed. However, this would have given the research a different approach.

## 7. Conclusion

### 7.1 The research question

The research has led to several insights about learning about nature in 'Nationaal Park De Hoge Veluwe'. By the use of questionnaires and interviews, data was obtained to find an answer to the question of how different visitors with different learning styles learn about nature through activities in 'Nationaal Park De Hoge Veluwe'. The main research question that had to be answered was the following: *How do visitors with different learning styles learn about nature through activities in 'Nationaal Park De Hoge Veluwe'?*

Due to the fact that the second sub-research question ('SRQ2: *Which type of learners engage in which activities in 'Nationaal Park De Hoge Veluwe'?*') leads to conclude that visitors do not choose activities based on their learning style, it is difficult to completely answer the main research question. Here, the assumption was made that visitors have different learning styles that influence them. However, a conclusion that can be drawn from the research is that visitors do not come to the park with the intention to learn something new. However, they visit for other reasons, and even though they did not have the intention to learn, they are interested. Learning styles were determined through questionnaires, but they did not seem to have an influence in choosing which activity visitors would participate in. As not many people indicated to have learned something or something about nature, it is difficult to draw a conclusion about what they learned about nature.

Therefore, to answer the main research question, it is not possible to draw conclusions about *how* visitors with different learning styles learn about nature through the activities. However, different visitors have similar ideas about learning in the national park, namely that it is not the main focus of their visit, but that they would rather just enjoy the nature. Learning can be a part of their experience, however, in the background and unconsciously. Their motivation to visit was mainly related to seeing the natural area and enjoy being there.

### 7.2 Future research

The research has not been able to answer the research question, but it has led to new insights, as well as to new ideas for research or follow-up research. In the future, it would be useful to focus on the connection between learning and environmental sustainability more, as this could lead to better insights on how to see if people want to become more environmentally friendly. For example, questions could be asked related to current environmental awareness and compared to moments after the visit. Here, the connection aspects of Ives et al. (2018), could be expanded. Moreover, learning was approached in one direction in this research, namely as learning in a way where someone learns something new. It can be relevant to look into the other ways of learning in a future research. For

example, transformational learning, experiential learning and unconscious learning could be elaborated on. This could be measured in a different way than was done in this research, and thought about before developing the research.

Interesting remarks were made in the interviews, for example something that was mentioned often in the interviews was that children have good opportunities to learn something in the Park. In a future research it would be interesting to see how children that visit a national park learn, and how they can connect to nature better. This could perhaps be compared to the experiences of grown-ups. Also, this research focused on the Dutch 'Nationaal Park De Hoge Veluwe'. It could be relevant to discover whether people learn differently in other national parks, or perhaps in areas that are not a national park. The focus on learning could be different here, which could give other experiences. This leads to another interesting aspect to be research. The Park probably set up the activities in a way that people would have a certain experience. It can be important to look into this as well, and connect it to the experiences that people have in reality.

## References

- Atiqul Haq, S. M. (2016). Multi-benefits of national parks and protected areas: an integrative approach for developing countries, *Environmental & Socio-economic Studies* 4 (1), pp. 1-11
- Ballantyne, R., Packer, J. (2002). Nature-based Excursions: School Students' Perceptions of Learning in Natural Environments, *International Research in Geographical and Environmental Education* 11 (3), pp. 218-236
- Bass, C. (2012). Learning Theories & Their Application to Science Instruction for Adults, *The American Biology Teacher*, 74 (6), pp. 387-390
- Baxter, P., Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers, *The Qualitative Report* 13 (4), pp. 544-559
- Benaquisto, L. (2008). Codes and Coding, in L. Given (Ed.): *The SAGE Encyclopedia of Qualitative Research Methods* (pp. 86-89). Thousand Oaks: SAGE Publications Inc.
- Borsos, E., Patocskai, M., Boric, E. (2018). Teaching in nature? Naturally!, *Journal of Biological Education* 52 (4), pp. 429-439
- Bricker, K.S. (2017). Mass Tourism and the US National Parks Service System, In D. Harrison & R. Sharpley: *Mass Tourism in a Small World* (pp. 118-136), London, UK: CAB International
- Brody, M. (2005). Learning in nature, *Environmental Education Research* 11 (5), pp. 603–621
- Brody, M., Tomkiewicz, W. (2002). Park visitor's understandings, values and beliefs related to their experience at Midway Geyser Basin, Yellowstone National Park, USA, *International Journal of Science Education* 24 (11), pp. 1119-1141
- Brown, G. (2004). How students learn, *A supplement to the RoutledgeFalmer Key Guides for Effective Teaching in Higher Education series*
- Brundtland, G. H., and World Commission on Environment and Development. (1987). *Our common future: Report of the World Commission on Environment and Development*, Oxford University
- Cassidy, S. (2004). Learning Styles: An overview of theories, models, and measures, *Educational Psychology* 24 (4), pp. 419-444
- Dienes, Z. (2012). Conscious versus unconscious learning of structure, in Rebuschat, P., Williams, J.N. (Eds.) *Statistical Learning and Language Acquisition*

- Dillon, J., Rickinson, M., Teamy, K., Morris, M., Young Choi, M. Sanders, D., Benefield, P. (2006). The value of outdoor learning: evidence from research in the UK and elsewhere, *School Science Review* 87 (320), pp. 107-112)
- Emerson, R. M., Fretz, R. I., Shaw, L. L. (1995). *Writing Ethnographic Fieldnotes*, Chicago, IL: University of Chicago Press
- Falk, J.H. (2005). Free-choice environmental learning: framing the discussion, *Environmental Education Research* 11 (3), pp. 265-280
- Ferrara, G. (2016). Fortress Conservation & the Makings of Yosemite National Park, retrieved 14-03-2018 from <https://smea.uw.edu/about/student-blog/blog/fortress-conservation-the-makings-of-yosemite-national-park/>
- French, P.A., Runger, D. (2003). Implicit Learning, *Current Directions in Psychological Science* 12 (1), pp. 13-18
- Goodland, R. (1995). The Concept of Environmental Sustainability, *Annual Reviews Ecol. Syst.* 26, pp. 1-24
- Hacking, E.B., Barratt, R., Scott, W. (2007). Engaging children: research issues around participation and environmental learning, *Environmental Education Research* 13 (4), pp. 529-544
- Halcomb, E. J., Davidson, P. M. (2006). Is verbatim transcription of interview data always necessary?, *Applied Nursing Research* 19, pp. 38-42
- Hergenhahn & Olson (2005). *An Introduction to Theories of Learning, Seventh Edition*, Upper Saddle River, NJ: Pearson Education
- Honey, P., Mumford, A. (1986). *Using your learning styles*, Berkshire, UK: Peter Honey
- Honey, P., Mumford, A. (2000). *The Learning Styles Helper's Guide*, Maidenhead Berks, UK: Peter Honey Publications Limited
- Honey, P. (2006). *The Learning Styles Questionnaire, 40-item version*, Maidenhead Berks, UK: Peter Honey Publications Limited
- Illeris, K. (2007). *How We Learn, Learning and non-learning in school and beyond*, Abingdon, Great Britain: Routledge
- Ives, C.D., Abson, D.J., von Wehrden, H., Dorninger, C., Klaniecki, K., Fischer, J. (2018). Reconnecting with nature for sustainability, *Sustainability Science* 13, pp. 1389-1397
- Kang, M., Gretzel, U. (2012). Effects of podcast tours on tourist experiences in a national park, *Tourism Management* 33, pp. 440-455

Kolb, A.Y., Kolb D.A. (2005). Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education, *Academy of Management Learning & Education* 2005 (4:2), pp. 193-212

Kupper, P., Hasenöhr, U., Stöger, G. Veichtlbauer, O., Wöbse, A., Würflinger, R. (2014). History of Hohe Tauern National Park: a case in point of use and protection, *Management & Policy Issues* 6 (1), pp. 63-66

Leeuwis, C. (with contributions by A. Van den Ban) (2004). Communication for rural innovation. Rethinking agricultural extension. Blackwell Science, CTA, Oxford, Wageningen.

Lugg, A., Slattery, D. (2003). Use of National Parks for Outdoor Environmental Education: An Australian Case Study, *Journal of Adventure Education and Outdoor Learning* 3 (1), pp. 77-92

Madin, E.M.P., Fenton, D.M. (2004). Environmental Interpretation in the Great Barrier Reef Marine Park: An Assessment of Programme Effectiveness, *Journal of Sustainable Tourism* 12 (2), pp. 121-137

Mayer, F. S., McPherson Frantz, C. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature, *Journal of Environmental Psychology* 24, pp. 503-515

Mehmetoglu, M. (2007). Typologising nature-based tourists by activity - Theoretical and practical implications, *Tourism Management* 28, pp. 651-660

Le Saout, S., Hoffmann, M., Shi, Y., Hughes, A., Bernard, C., Brooks, T. M., Bertzky, B., Butchart, S. H. M., Stuart, S. N., Badman, T., Rodrigues, A.S.L. (2013). Protected Areas and Effective Biodiversity Conservation, *Science* 342 (6160), pp. 803-805

Orams, M.B. (1997). The Effectiveness of Environmental Education: Can We Turn Tourists into Greenies'?, *Progress In Tourism And Hospitality Research* 3, pp. 295-306

Ramkissoon, H., Weiler, B, Smith, L.D.G. (2012). Place attachment and pro-environmental behaviour in national parks: the development of a conceptual framework, *Journal of Sustainable Tourism* 20 (2), pp 257-276

Rewilding Europe (2015). Making Europe a Wilder Place, retrieved 15-01-2018 from <https://www.rewildingeurope.com/>

Rickinson, M. (2001). Learners and Learning in Environmental Education: A critical review of the evidence, *Environmental Education Research* 7 (3), pp. 207-320

Riseth, J. Å. (2007). An Indigenous Perspective on National Parks and Sámi Reindeer Management in Norway, *Geographical Research* 45, pp. 177-185

Scott, D., Jones, B., Konopek, J. (2007). Implications of climate and environmental change for nature-based tourism in the Canadian Rocky Mountains: A case study of Waterton Lakes National Park, *Tourism Management* 28, pp. 570-579

Shwartz, A., Cosquer, A., Jaillon, A., Piron, A., Julliard, R., Raymond, R., Simon, L., Prévot-Julliard, A.C. (2012). Urban Biodiversity, City-Dwellers and Conservation: How Does an Outdoor Activity Day Affect the Human-Nature Relationship?, *PLoS ONE* 7(6): e38642., pp. 1-8

Schultz, P.W. (2002). Inclusion with Nature: The Psychology Of Human-Nature Relations. In: *Schmuck P., Schultz W.P. (eds) Psychology of Sustainable Development*. Springer, Boston, MA

Stichting het Nationaal Park de Hoge Veluwe (2018)a. Bezoek het park, retrieved 23-06-2018 <https://www.hogeveluwe.nl/nl/bezoek-het-park>

Stichting het Nationaal Park de Hoge Veluwe (2018)b. Agenda Overzicht, retrieved 24-06-2018 from <https://www.hogeveluwe.nl/nl/agenda>

Uzuna, F.V., Kelesa, O. (2012). The effects of nature education project on the environmental awareness and behaviour, *Procedia - Social and Behavioral Sciences* 46, pp. 2912-2916

Walpole, M. J., Goodwin, H. J. (2001). Local attitudes towards conservation and tourism around Komodo National Park, Indonesia, *Environmental Conservation* 28 (2), pp. 160-166

Weiler, B., & Ham, S. H. (2001). Tour guides and interpretation in ecotourism. In D. Weaver (Ed.), *The encyclopedia of ecotourism*. Wallingford, UK: CABI Publishing

Yousef, D.A. (2018). Learning style preferences of undergraduate students: The case of the American University of Ras Al Khaimah, the United Arab Emirates, *Education + Training*, 60 (9), pp. 971-991

## 8. Appendix

### 8.1 Questionnaire

#### Enquête over Leerstijlen voor scriptieonderzoek aan Wageningen Universiteit

Datum ..... Tijd .....

Bedankt voor het invullen van de enquête. Het maakt deel uit van mijn master scriptie onderzoek dat gaat over hoe bezoekers leren over natuur in Het Nationaal Park de Hoge Veluwe. Het duurt ongeveer 10 minuten en helpt mij erg bij het schrijven van mijn scriptie.

Alle informatie wordt alleen gebruikt voor onderzoekdoeleinden. De informatie zal niet worden gedeeld of openbaar gemaakt worden. U heeft het recht om ten alle tijden te stoppen met het invullen van de enquête.

Deze enquête gaat over de manier waarop bezoekers van het Park leren. Als u het leuk vindt om te weten wat uw leerstijl is, kan ik deze u sturen. Als u uw email-adres invult zal dit alleen gebruikt worden om de uitslag te sturen, en wordt verder niet opgeslagen of gebruikt.

E-mailadres (niet verplicht): .....

Als u vragen heeft, kunt u deze aan mij stellen.

Nogmaals bedankt!

Anouk van Gaans

Student MSc Internationale Ontwikkelingen, Wageningen University and Research

Vul eerst het volgende in:                      V/M                      Leeftijd: .....

De enquête gaat verder op de volgende pagina.

---

Deel 1: Vink hieronder de uitspraken aan **waar u het mee eens bent**:

- Ik hou ervan om risico's te nemen.

- Voordat ik deelneem aan een discussie, wil ik graag bijbehorende informatie lezen en goed voorbereiden.
- Ik heb het graag bij het juiste eind.
- Ik hou van praktische, geteste technieken.
- Ik doe vaak dingen omdat ik er zin in heb, in plaats van er eerst over na te denken.
- Ik maak beslissingen pas nadat ik alle voor- en nadelen heb overwogen.
- Ik geef de voorkeur aan het oplossen van problemen met een systematische benadering dat gokwerk en onzekerheden vermindert.
- Wat het belangrijkste is, is of iets in de praktijk werkt.
- Ik zoek actief voor nieuwe dingen om te doen.
- Ik geef de voorkeur aan het vaststellen van feiten en dingen goed overdenken voor ik een conclusie trek.
- Ik wil graag dingen zelf controleren in plaats van ze aan te nemen.
- Als ik over een nieuw idee of techniek hoor, begin ik meteen met nadenken over hoe ik het kan toepassen op mijn situatie of probleem.
- Ik hou van de uitdaging om dingen op verschillende manieren uit te proberen.
- Ik geef de voorkeur aan het hebben van verschillende soorten informatie over iets. Hoe meer hoe beter.
- Ik hou ervan om vaste routines aan te houden, en procedures en tijdschema's te volgen.
- In discussies kom ik graag snel tot het punt dat ik wil maken.
- Ik geef de voorkeur aan het doen van dingen zoals ze komen in plaats van dingen te plannen.
- Ik baseer beslissingen graag op hard bewijs en vertrouw niet op intuïtie.
- Ik zet dingen graag in een patroon, raamwerk of model.
- Ik heb de neiging ideeën van anderen te beoordelen op hun praktische waarde.
- In discussies kom ik vaak met veel spontane ideeën.
- Ik kijk graag naar een probleem van verschillende kanten voordat ik het ga oplossen.
- Ik evalueer graag mijn idee voordat ik het deel.
- In discussies kom ik met ideeën die realistisch zijn.
- Ik praat vaak meer dan dat ik luister.

- Als ik een formeel rapport moet schrijven maak ik graag een aantal versies voor de definitieve versie.
- Ik ben een beetje een perfectionist.
- Ik merk dat ik vaak de praktische manier van dingen doen bedenk.
- Ik vind dat regels en procedures de pret bederven.
- Ik overweeg veel opties voordat ik beslis wat ik wil.
- Ik geloof dat goed, logisch nadenken de sleutel tot succes is.
- Ik geef de voorkeur aan ideeën met een duidelijke relevantie tot mijn leven en werk.
- Ik ben vaak het middelpunt op een feestje.
- Ik denk graag eerst aan de consequenties voordat ik actie onderneem.
- Ik wil de veronderstellingen, principes en redeneringen weten waar dingen op gebaseerd zijn.
- In mijn mening maakt het niet uit hoe je iets doet, als het maar werkt.
- Ik hou van de opwinding van een crisis situatie.
- Ik luister vaak meer dan dat ik praat.
- Ik wil graag dat vergaderingen en discussies gestructureerd verlopen.
- Ik doe wat nodig is om te slagen.

Deel 2: Kruis hieronder s.v.p. aan wat u vandaag gedaan heeft of gaat doen in het Park, vul de extra vragen in als nodig en geef aan wat u ervan vond door het figuurtje aan te kruisen.

	Fietsen door het park Tijd besteed: ..... Indien een georganiseerde/aangegeven route of tour: .....	
	Wandelen door het park Tijd besteed: ..... Indien een georganiseerde/aangegeven route of tour: .....	
	Een expositie bezoeken Welke: .....	
	Het bezoekerscentrum bezoeken Tijd besteed: .....	
	Het Kröller-Müller museum bezoeken	
	Jachthuis St. Hubertus bezoeken	

Museonder bezoeken Tijd besteed: .....	
Kinder-/familieactiviteiten Welke: .....	
Safari Welke: .....	
Vissen	
Paardrijden	
Kamperen	
Anders, namelijk .....	

## 8.2 Interview guidelines

Researcher: write down date and male/female

- Introducing questions
  - o Where are you from?
  - o Have you been here before?
  - o Are you travelling alone or with others?
  - o What is your motivation for visiting?
- Specifying questions
  - o What have you done today?
  - o What did you think of it?
  - o Did you learn anything/see anything new/discover something? What? Was it related to nature?
  - o Did you know something about this before?
  - o Do you want to learn something when you are here?

### 8.3 Final codes of the interview coding

- Activities done
  - Cycling
  - Walking
  - Driving the car
  - Visitor's Centre
  - Museonder
  - Kröller-Müller museum
  - Natuurdetective
  - Nature Game
  - Sculpture garden
  - Exposition
  - Playground
- Motivation to visit
  - To see nature
  - To cycle
  - To walk
  - To see art
  - To amuse the grandchildren
  - Different than at home
  - To be away from home
  - To relax
  - Guardian Card
  - Free entrance (Postcodeloterij)
- Travelling alone/together
  - Alone
  - Together
- Revisit of the park
  - No
  - Yes
- Prior knowledge
  - Know a lot
  - Don't know a lot
- Learning
  - Did learn
  - Didn't learn
- Intention to learn
  - Yes

- No
- Learning
  - Children learning
  - Always possible to learn
  - Have seen almost everything
  - Often in nature
  - Never seen enough
  - Opportunities for learning
  - Fun to learn
  - Unconscious learning
  - Would like to learn