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# Gamification in Tourism - A Design Thinking Approach to Memorable Experience Design

Rolf Oftedal, Markus Hasler Sveen & Kristian Listou Riksheim
Entrepreneurship and Innovation

# Preface

This study addresses how to apply Design Thinking and gamification when developing memorable experiences within Nordkapp's tourism industry. The study is the final project of the master study Entrepreneurship and Innovation at the Norwegian University of Life Sciences.

The three students have different backgrounds and skills, contributing to a project team with interdisciplinary benefits, relying on each other's strengths during the innovation process conducted in this study. We want to thank the five experience providers of Nordkapp that have participated in our action research. Their participation meant that we could apply theoretical concepts in practical settings. From this, we gained immense knowledge, which will benefit us for the rest of our careers.

We want to thank our supervisor, Elin Kubberød, who has supported us throughout this process. We also want to thank Arnar Sigurdarrson, the CEO of East of Moon, which has let us use the innovation software of *missions.dev* to structure and categorise data. We hope this process can contribute to the further development of this collaborative platform. We also want to thank Kayla Diaz for her excellent editing work. Further, we want to thank Roman Egger and Paul Bulencea for their assistance in applying their developed framework of Memorable Experience Design to a practical setting. We want to thank every informant that has participated in this study – both tourists and industry experts. Lastly, we want to thank Yngve Kristiansen, Marius Grønning, the municipality of Nordkapp and the rest of the interdisciplinary masterclass, which has made this study possible through collaboration and funding.

Enjoy reading!

# Abstract

**Background:**

Tourism in Norway is an industry with long traditions, but Covid-19 has required many Norwegian tourism destinations to rethink the way they provide experiences for tourists. Hence, it is imperative to research how new methods and systems for innovation can be applied to develop memorable experiences.

**Purpose:**

This study aims to research best practice on how to apply Design Thinking and gamification in the development of memorable experiences. To answer this, we came up with the following problem statement: *How can Design Thinking and gamification improve innovation in the development of memorable experiences within tourism?*

**Method:**

To answer the problem statement, we used Action Research as the methodical approach to the four Design Thinking phases: *Empathise, Define, Ideation & Prototyping and Testing & Iteration*. Qualitative data collection methods such as in-depth interview, observations, experiments and workshops are central to this study. The co-researchers of this study are five experience providers geographically located close to the famous tourist destination of Nordkapp. We had two groups of informants within the study, consisting of potential tourists and industry experts.

**Findings and Implications:**

The study shows how we applied the four phases of Design Thinking to a tourism context by developing new tools for understanding positive psychology and implementing gamification in practical experience design. In the *empathise* phase, we developed new methodical steps to gain insights into PERMA's positive psychology framework for individual tourists. In the *define* phase, we developed the PERMA map tool to assist experience providers in understanding the framework in a practical setting. Further, a player taxonomy is adapted to a tourism context to communicate insights. In the *Ideation & Prototyping* Phase, we developed a screening and development tool based on gamification concepts and methods. We exemplified how to apply this tool in a practical setting in the *testing & iterations* phase.

# Sammendrag

**Bakgrunn:**

Turistindustrien er en bransje med lange tradisjoner i Norge, men som følge av Covid-19 er mange norske reiselivsdestinasjoner nødt til å tenke nytt over hvordan de kan tilby turistoppelvelser. Det er derfor avgjørende å undersøke hvordan nye metoder og systemer kan brukes til å utvikle minneverdige opplevelser.

**Hensikt:**

Hensikten med denne studien har vært å undersøke beste praksis for å bruke design thinking og gamification til å utvikle minneverdige opplevelser. For å besvare dette har vi kommet opp med følgende problemstilling: *Hvordan kan Design Thinking og gamification forbedre innovasjon i utviklingen av minneverdige opplevelser i reiselivet?*

**Metode:**

For å besvare på denne problemstillingen er aksjonsforskning blitt benyttet som den metodiske tilnærmingen. Det har blitt gjennomført en Design Thinking prosess, basert på fire faser: *Empatisere, Definere, Ideskaping & Prototyping og Testing & Iterasjon*. Kvalitative datainnsamlings metoder som dybdeintervju, observasjoner, eksperimentering og workshops er sentralt for dette studiet. Medforskerne i dette studiet er opplevelsesleverandører med nær tilknyttning til Nordkapp. To grupper av informanter er brukt i studien – potensielle turister og eksperter innen reiselivet.

**Funn og implikasjoner:**

Studien viser hvordan de fire fasene i design thinking kan brukes i reiselivet ved å utvikle nye verktøy for å implementere gamification under utviklingen av minneverdige opplevelser. I *empatifasen* utviklet vi nye metodiske trinn for å forstå brukeren av turisopplevelser gjennom PERMA, et rammeverk for å forstå positiv psykologi. I *defineringsfasen* ble verktøyet PERMA-kart utviklet for å gi opplevelsesleverandørene en forståelse av rammeverket i en praktisk kontekst, og en taksonomi for spilldesign ble tilpasset for å kommunisere innsikter. I *ideskaping & prototypingsfasen* utviklet vi et nytt screening og utviklingsverktøy basert på konsepter og metoder fra gamification. I *testing & iterasjonsfasen* ble dette verktøyet brukt for å eksemplifisere hvordan man kan bruke dette verktøyet i praksis.

**Table of Contents**

# 1. Introduction

## 1.1 Study Background

Norway's recorded history of tourism began in 1664 when Francesco Negri, an Italian priest, was the first tourist to travel through Norway to Nordkapp (NordNorsk Reiseliv AS, 2021). The birth of the Norwegian tourism industry came in the latter half of the 19th century when travellers started showing an increased interest in visiting the country, resulting in the foundation of the Norwegian Trekking Association (DNT) in 1868 (Store Norske Leksikon, 2021).

Today, the tourism industry accounts for 4% of the Norwegian BNP, contributes 70 billion NOK to the Norwegian economy each year (Store Norske Leksikon, 2021), and has seen an average yearly growth of 3% each year from 2011 to 2018 (SSB, 2018). Northern Norway, in particular, has seen tremendous tourism growth in the past ten years, and the tourism industry alone contributes 8 billion NOK in value creation. It is responsible for the employment of over 160 000 people, and the jobs and value creation brought on from this industry are crucial for the region, more so than in other regions of Norway (Iversen, Løge, & Helseth, 2017).

Following this course of growth, the World Tourism Organization estimates that the global tourism industry will double its 2018 numbers by 2030 (NHO, 2019). The Norwegian Trade Organization (NHO) aims to make this estimate a reality for the Norwegian tourism industry through its proclaimed strategy named *2x30* (NHO, 2019).

NHO reports that the Norwegian travel industry has positioned itself to reap the benefits of current tourism trends. The fastest-growing sector of the tourism industry in Norway is the experience sector. From 2005 to 2018, the sector grew from 41 billion NOK to 85 billion. NHO also predicts that this sector will continue its growth in the years to come. The most relevant tourism trends for Norway are experiences, activities, culture and safety (NHO, 2019).

Many tourists prefer to combine different activities and experiences. Among foreign tourists travelling to Norway, 42% said that culture, nature, and outdoor activities were of high importance when visiting Norway (Innovation Norway, 2018). A current paradigm shift from the typical tourist to the adventure-seeking traveller who values collecting experiences rather than commodity-based goods. This shift coincides with Pine & Gilmore's (1999) theories

about the **Experience Economy** (further referred to as EE). They argue that after the service economy, the next logical step would be an EE, where consumers purchase **Memorable Experiences** (further referred to as ME) instead of separate services (Pine & Gilmore, 1999). To measure the quality of an experience, one can use the concept of memorability. Memorability is whether the experience has any lasting impact on the tourist (Boswijk, Peelen, Olthof, & Beddow, 2012).

Further illustrating this point, Visit Norway states in their roadmap for sustainable tourism development, "Norway as a destination must offer unique and memorable experiences based on beautiful, magnificent, contrast-filled nature and unique culture" (Visit Norway, 2017). Several factors go into making an experience memorable, something we will revisit later in this thesis.

In 2019, a study examined 333 research articles that investigate the link between tourism and innovation. The main findings are that conventional manufacturing industries highly influence innovation approaches to tourism, and there are few studies on the subject of innovation in experience tourism. The review concludes that experiences are an essential product of tourism, and new research should investigate how innovation can improve experience development (Işık, Küçükaltan, Taş, et al., 2019).

To further explore the potential relationship between innovation and tourism, we have conducted an **Action Research** (further referred to as AR) project developing a new methodology for innovation in cooperation with the tourism industry within the municipality of Nordkapp. This project is a part of the *interdisciplinary masterclass*, a collaboration between the Norwegian University of Life Sciences and Nordkapp Municipality. Through this collaboration, we had the opportunity to collect data for our thesis by spending one month in the town of Honningsvåg in February and March 2021.

This thesis presents a new way of working with experience design in tourism innovation, combining **Design Thinking** (further referred to as DT) and principles from gamification. This new methodology aims to develop tools that increase the grade of innovation and memorability when developing new experiences within the tourism sector.

## 1.2 Contribution and Relevance

DT is a repeatable cyclic and iterative human-centred process where an organisation or community works to solve a specific problem. Carlgren, Rauth & Elmquist (2016) explain that this method constantly forces the researcher to take a step back and gain a deeper understanding of customers' pain points. The intention of working with DT is to enhance the outcome of the innovation so that it fits the market better (Carlgren, Rauth, & Elmquist, 2016).

In this respect, Robbins & Devitt (2017) conducted a study on experience tourism in Ireland using DT. The DT process incorporated ethnographic research involving customers, tour operators, historians, and artists to develop a portfolio of entrepreneurial and novel ideas for enhanced tourism experiences. The DT process resulted in a series of successful new enterprises and a sustained higher level of cooperation between the institutions. As many as 85% of the involved institutions reported an increased visitor number (Robbins & Devitt, 2017). They conclude that future research should use DT in a tourism context, following the process from the beginning to the implementation of new products. DT is still an uncommon method, and there is little empirical research on its implementation (Carlgren, Rauth, et al., 2016). This thesis aims to advance empirical testing of DT in the context of tourism.

Gamification has recently been gaining scientific attention. Gamification is an approach that aims to encourage motivation, enjoyment, and engagement with the customer by using video game developers' methods and techniques in non-gaming contexts (Seaborn & Fels, 2015). Egger & Bulencea (2015) provided a fresh viewpoint on using gamification to create ME in tourism. However, there is little empirical research on the implementation of gamification in the tourism industry (Xu, Weber, & Buhalis, 2013). Hence, this thesis will explore how Egger and Bulencea's (2015) memorable design framework for gamification can be applied to innovate tourism experiences.

In the spring of 2020, the Covid-19 pandemic had a global impact on tourism. Health measures such as lockdowns, travel bans, and quarantine have caused an almost full-stop in travel and leisure. There are expectations that the demand for tourism experiences will rise dramatically after the pandemic (Kaur & Kaur, 2020), and Sigala (2020) explains that the crisis will drive innovation, accelerating technology and change. Sigala argues that it is up to tourism scholars to ensure that these innovations serve real needs and meaningful values (Sigala, 2020).

This thesis will bring relevance to the local community of Nordkapp and their recovery from Covid-19. Merging gamification and DT in a combined setting will hopefully contribute to the literature within both topics in a tourism context.

## 1.3 Aim and Problem Statement

This study aims to contribute new knowledge in the literature of DT and gamification through the methodical approach of AR. We will investigate how the combination can improve the innovation practice of tourism experience providers in the municipality of Nordkapp through a newly developed innovation process for developing memorable tourism experiences.

### 1.3.1 Problem Statement

This study uses AR as an approach. Hence, we will take an agile approach in designing the problem statement, changing it multiple times throughout the process. The final problem statement of the study is:

*How can Design Thinking and gamification improve innovation in the development of memorable experiences within tourism?*

## 1.4 Structure of the Thesis

Chapter 2 presents the theoretical framework by introducing contributions to innovation in tourism and the EE. DT is presented as an innovation method and how it can be applied as an innovation process. Further, we will show how gamification can be used to improve the existing framework of DT. The theoretical framework will end up addressing three subproblem statements. Chapter 3 describes the case community and the methodical framework in light of the AR process. A detailed description of how the AR process was structured and completed is an essential part of the study. The detailed description will include the types of data and collection methods. The results are presented in Chapter 4 before the research findings are discussed in relation to the theoretical framework in Chapter 5. Finally, in Chapter 6, the conclusion of the thesis is presented.

# 2. Theoretical Framework

## 2.1 Innovation in the Tourism Industry

Innovation is one of the prerequisites for long term economic growth in tourism (Jiménez-Jiménez & Sanz-Valle, 2011). While tourism is not considered an innovative industry by scholars, it adapts quickly to new ideas and technology, and new information is rapidly turned into action (Hjalager, 2015).

A study conducted by Divisekera & Nguyen (2018) investigated the possible drivers of innovation in tourism, and they found that several factors had an impact. Collaboration between firms creates the opportunity to gather data on risk and industry-specific knowledge. Knowledge sharing and knowledge creation often lead to innovative new products, improving the efficiency of management and operations. Foreign ownership and funding also create this same effect (Divisekera & Nguyen, 2018). Barriers to innovation lay in the size of companies, as small tourism businesses often do not have the financial capabilities to implement innovation processes. Other drivers are increased competition, demand from customers and changing regulations (Hall & Williams, 2008). The tourism industry includes many different activities that all interact and rely on each other, like transport, accommodation, experiences, and food serving. The complexity of the sector increases the need for innovation, and innovation should eliminate the problems arising from the structural foundations (Işık et al., 2019).

Tweneboah-Koduah, Anning-Dorson & Nyamekye (2020) argues that tourism businesses with higher levels of customisation towards the customer can achieve value creation through innovation. Customisation in tourism relates to customer involvement in product development. The results from the study support the hypothesis that process innovation and high levels of customisation lead to a positive effect on individual tourism businesses financial performance (Tweneboah-Koduah, Anning-Dorson, & Nyamekye, 2020). Experiences that fit the customers' demand will stand the test of time, being attractive in all circumstances (Kaur & Kaur 2020).

Collaboration and knowledge sharing are essential for driving innovation, and customisation of products is necessary to meet the customers' demand. There is reason to suggest that new

tools and frameworks should be developed to create ME in the ever-increasing size of the EE. Pine and Gilmore mention that customisation and the increasing EE together create a megatrend called "individualisation" (Pine & Gilmore, 2013).

## 2.2 The Memorable Experience within the Experience Economy

We can trace the term EE back to 1998 with Pine and Gilmore. They argued that the next logical step after the agrarian economy, the industrial economy and the service economy was for businesses to stage ME for their customers. While the definition of a tourism experience is somewhat unclear, academia has agreed that memorability is the goal of a tourism experience, as the primary economic driver of EE is to make the experiences memorable (Pine & Gilmore, 1999).

The EE is extensive and encapsulates a plethora of different industries. Experiences are subjective, and an attempted demarcation has previously created problems for research and policy in Scandinavian countries (Bille, 2012). Pine and Gilmore believed that an experience could be added to anything (Pine & Gilmore, 1999) and, therefore, it is argued that any attempt to categorise it is in vain. On the other hand, the Danish researchers, Bille & Lorentzen (2008), have previously attempted to describe three groups of experience industries as explained in Table 1 (Bille & Lorenzen, 2008).

*Table 1: The Three Groups of Experience Industries (Bille & Lorentzen, 2008)*

| The three groups of experience industries | Description |
|---|---|
| ***1 - The Creative Experience Industries*** | These have experience as the primary goal, and the experiences are produced with artistic creativity. Theatre, music, visual arts, literature, film, and computer games are found within this sector. |
| ***2 - The Experience Industries*** | These businesses are staging experiences for their customers, but artistic creativity is not essential. Examples of this sector are museums, libraries, or cultural heritage sites. |
| ***3 - The Creative Industries*** | The experience is not the primary goal in these industries, but creativity is essential. These businesses often deliver services to other businesses such as design, architecture, or advertising. |

Pine and Gilmore (1999) captured the attention of academic researchers and business practitioners by describing a progression of economic value (as seen in Figure 1) – from commodities and products to services and experiences. They make the case that businesses who create products with a high grade of differentiation and relevance for the consumer (i.e., the customer's needs) can charge a higher price than their counterparts.

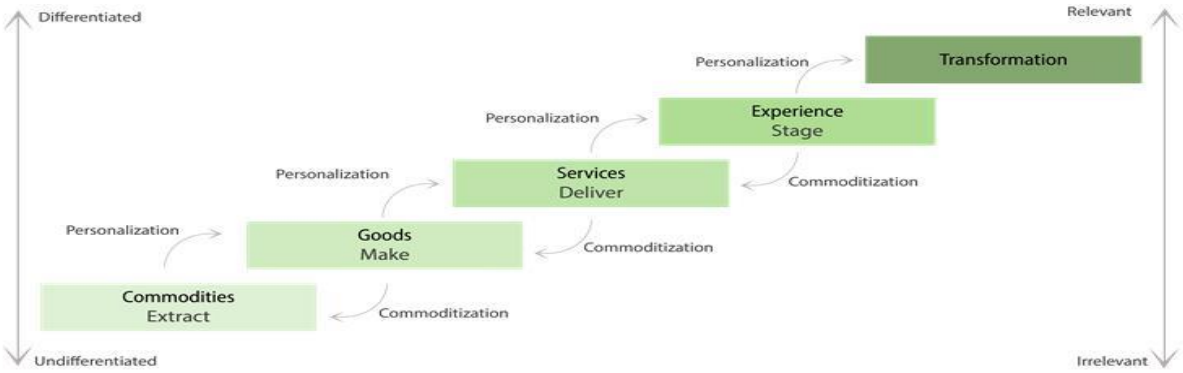



*Figure 1: The Progression of Economic Value (Pine & Gilmore, 1998)*

Businesses that provide *commodities* have an undifferentiated product with no relevance. A suitable example in our study of a commodity would be a frozen king crab. If multiple frozen king crabs are of the same type, the consumer will choose the product with the lowest price. If one of the businesses that sell this commodity creates a brand around the frozen king crab, the king crab can now be considered *goods*, and it is possible to charge a higher price. Bring a packaged king crab directly to the consumer and a *service* is provided, which makes the price go up even further. To make the consumer pay more for a service, businesses can stage *experiences*, such as transporting a live king crab to a fancy restaurant. The last step of the model is to provide *transformative* and memorable experiences - the most sought-after product in the EE. In Nordkapp, they provide king crab safaris where you can harvest the king crab and try to slaughter one yourself. This experience could be a potentially life-changing, transformative experience for the right individual. To reach this stage is the goal for anyone who provides tourists experience as you leave a lasting memory within the individual (Pine & Gilmore, 1999).

The tourism industry is said to pioneer the EE (Hosany, Zeglat, & Odeh, 2016). Therefore, researchers have gone to great lengths to define what a ME is within a tourism context and how to design experiences to achieve memorability. However, it is debated if an experience can be designed. Experiences are subjective, and there are plenty of factors that are hard to influence. The guest's cultural background, mood, expectations, prior experience, and a magnitude of other factors will possibly impact how the experience is perceived. However, the elements that contribute to ME are knowable and reproducible, making them designable (Egger & Bulencea, 2015).

Kim, Ritchie & McCormick (2012) developed a scale to measure memorable tourism experiences based on seven domains described in Table 2. They argue that these dimensions are essential factors for impacting a person's memory. A central finding of this study is that individuals can more easily recall positive experiences than negative experiences. Tourists wish to participate in different experiences but prioritise the ones where they can explore their talents and capabilities. Increasing social contact can increase the possibility of understanding oneself, an essential factor for finding meaning within the tourism experience (Kim, Ritchie, & McCormick, 2012).

*Table 2: The Scale of Seven Domains to Measure Memorability in Tourism Experiences.*

| Domains | Description |
|---|---|
| ***Hedonism*** | Pleasurable feelings that excite oneself |
| ***Refreshment*** | The state of being refreshed |
| ***Interactions with locals*** | A feeling of connection and group identity with travel partners or local people |
| ***Meaningfulness*** | A sense of great value or significance |
| ***Knowledge*** | Information, facts, or experiences known by an individual |
| ***Involvement*** | The level of involvement of oneself with a tourism experience |
| ***Novelty*** | A psychological feeling of newness resulted from having a new experience |

The work of Seligman on positive psychology is central within the ME. The PERMA model, seen in Figure 2, was developed in 2011 and consists of five main elements that must be met to experience well-being (Seligman, 2018; Seligman & Csikszentmihalyi, 2014). According to empirical research conducted by Filep and Pierce (2013), well-being is relevant to tourism experiences. Their research concludes that successful tourist experiences have a lot in common with the PERMA criteria. Hence, the PERMA model will be used in this AR to assist in designing ME (Filep & Pearce, 2013).

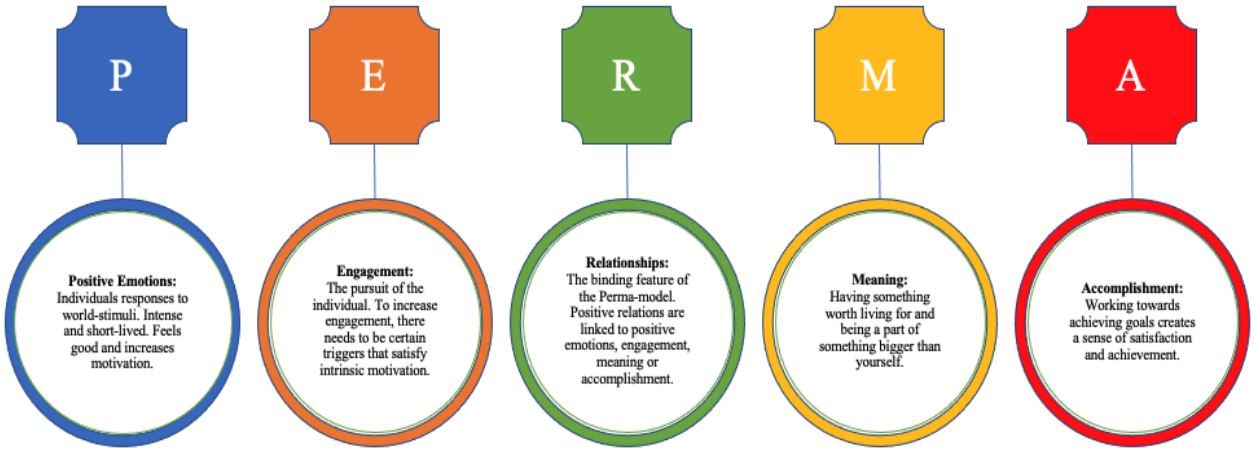



*Figure 2: The PERMA Model*

Tussyadiah (2014) has proposed a new framework for designing ME, and argues that the most critical activity to design ME is to explore your customers with naturalistic inquiries and design with the customer's point of view in mind. This means taking the human-centred approach, using empathy to focus on the customer's needs, desires, expectations, and limitations. It is essential when designing experiences to recognise and understand how customers perceive an experience and use insights to improve it.

Tussyadiah (2014) proposes an iterative design process and draws lines from industrial design and architecture to tourism. In these industries, designers recognised that many design problems are often *wicked problems*. Wicked problems are searching for solutions to problems that the customers do not need to solve. The designers in these industries have understood the need to refine their understanding of problems to avoid problem definitions based on their pre-existing personal assumptions. She argues that, just like in architecture and industrial design, tourism should shift from a vertical dimension (linear working process) to a more horizontal (iterative and problem-solving) approach. Tussyadiah (2014) refers to the linear process as the waterfall process and underlines it is risky to design a tourism experience in this manner as costs and time for designing the product before testing the prototype are very high. A cyclical process with several touchpoints of iterations like prototyping, testing, and analysing will be much more beneficial since capturing the customer's needs early in the process is essential (Tussyadiah, 2014).

While Pine and Gilmore's work is excellent for developing an understanding of the EE, designing successful experiences requires understanding complex psychological factors as described by the PERMA model. Therefore, we propose using DT, a process more in line with Tussyadiah's work and studies.

## 2.3 Design Thinking in Memorable Experience Design

DT is a human-centred method, where the emphasis is placed on user needs during the entire innovation process to get a market-suitable product (Brown, 2008). In recent years, DT has gained increased interest and has evolved from being a “buzzword” within innovation to a methodological tool used in innovation processes. The Institute of Design at Stanford University was among the first schools to practice and teach the DT method, which they still do within several fields (Institute of Design, 2021).

DT's user-centred approach to innovation bases itself on how designers work and think. Despite being increasingly promoted as an approach to innovation, there is still little evidence of successful impact (Carlgren, Elmquist, & Rauth, 2016). This AR project can contribute to DT research in a specific context - in our case, with the experience tourism industry. According to Carlgren, Elmquist et al. (2016), DT is a toolbox of core elements and methods which can be applied separately or as systematic steps in a process. In this study, we need to identify what tools and principles are applicable for our case, as there are numerous different perspectives and principles in the literature of DT.

Carlgren, Rauth, et al. (2016) point out that DT is an iterative cyclic process. Five main principles characterise the concept: *user focus, problem framing, visualisation, experimentation, and diversity.* We chose to base this study on the highlighted fundamental principles in their study (shown in Table 3). We consider these principles relevant for this case as they have been tested and operationalised, and we can use these principles to validate the DT method. DT starts by *empathising* with the user to get a deep understanding of the user's needs. Further, the goal is to *define and reframe* problems before *visualising* and brainstorming ideas to solve the problem. The ideas should be *experimented* with by prototyping, testing and iterating based on feedback from users. Including *diverse teams* in the DT process helps provide a broader range of skills that strengthens the process (Carlgren, Rauth, et al., 2016).

*Table 3: Key Principles of DT (Carlgren, Rauth, et al., 2016)*

| Core elements | Examples of practices and principles |
|---|---|
| ***User focus*** | Empathise with users to understand latent needs by using qualitative, context-specific approaches to do user research. Interaction with users in, for example, research, ideation, and idea testing |
| ***Problem framing*** | Challenge and reframe the initial problem to expand both the problem and solution space through various synthesis activities, including pattern finding and ideation. |
| ***Visualisation*** | Make ideas and insights visual, and make tacit knowledge tangible. Communicate and create new ideas through visual structuring techniques, rough mock-ups, and role-play. "Thinking by doing". |
| ***Experimentation*** | Iterative, divergent and convergent work style. Prototype quickly and often to learn and test solutions by sharing prototypes with users. Fail often and fail soon. Playfulness and humor. |
| ***Diversity*** | Creation of diverse teams where every opinion counts. Decisions are made jointly. Collaboration with external entities and seeking diverse perspectives from a variety of fields. Democratic spirit. |

Micheli, Wilner, Bhatti, et al. (2019) identified and grouped eight tools based on thirty-seven methods in their systematic review of DT literature: ethnographic methods, personas, journey map, brainstorming, mind map, visualisation, prototyping and experiments. Seidel & Fixson (2013) emphasise that the tools and methods should not be considered isolated elements. It is not the number of tools used that matters but the linkage between them (Seidel & Fixson, 2013). This study has developed tools based on Carlgren, Rauth, et al. (2016) operationalised and tested principles. We will come back to this in Chapter 3, the methodology framework.

According to Tussyadiah (2017), DT is an excellent method for innovation in experience design. Design is a persuasive practice within an organisation where human-centred innovation is obtained through integrating consumers, designers, and business managers in a collaborative environment. DT is an effective way to explore and define unarticulated problems associated with service delivery in experiences and provide solutions to problems in innovative ways (Tussyadiah, 2017). Sandrova, Repanova, Palencikova, & Betak (2020) used DT to approach tourism education. They concluded that DT is a creative problem-solving approach to developing tourism products and has the potential to be a revolutionary and fascinating real-life teaching method. Despite the emergence of a few difficulties during their DT process, they emphasise the simplicity of addressing and effectively eliminating these difficulties (Sándorová, Repáňová, Palenčíková, & Beták, 2020).

Previous studies on innovation practices in tourism have often emphasised the innovation outputs such as products, services, marketing approaches, and remodelled organisational structures. There is a lack of research on the innovation processes in tourism enterprises (Hall & Williams, 2008). However, a study following the innovation process of 24 "new-to-tourism"-entrepreneurs in Spain confirms that the innovation process in tourism often does not follow the linear stages of traditional product innovation models. These entrepreneurs developed their experiences in an iterative way. Often the product was not fully developed at launch, and the ideas were quickly and constantly evaluated (Rodriguez-Sanchez, Williams, & Brotons, 2019).

There are two types of innovation processes: linear and interactive. The linear innovation process starts with development, then moves on to production and marketing. This form of innovation has a longer development time, with less communication and evaluation between the steps. Linear processes are criticised for testing the concept only at the end, as well as lack of user involvement, ignoring feedback during the process (Bergum, 2004; Fagerberg,

Mowery, & Nelson, 2005; Sander, 2019c). On the other hand, the interactive innovation process continually considers feedback in each step (Bergum 2004). Interactive innovation processes are user-centred, which Hoholm & Huse (2008) defines as taking advantage of the user's knowledge to develop new products, services and concepts. Wise & Høgenhaven (2008) point out that the user-driven innovation process is based on understanding actual user needs in systematic user involvement. Understanding Tussyadiah's (2014) suggested mentality shift in tourism, from the vertical to the horizontal dimension, we will in this study emphasise the value of interactive and user-driven innovation methods as this approach corresponds with the mindset of DT.

Nordin & Hjalager (2016) conducted a study of how tourism businesses applied innovation processes. They separate between two types of innovation processes described by Jensen, Johnson, Lorenz, & Lundvall (2007): STI vs DUI. STI refers to science, technology, and innovation. STI is defined as a linear, step-by-step model. The knowledge is obtained through science, and there is often a level of secrecy until launch. DUI stands for doing, using, and interacting. This method is categorized by circular processes where failures are accepted. The main drive is consumer demand, and the innovation process is built around the mindset of open innovation where customers and collaborators are invited to join in on the process. The case study showed that from a tourism perspective, the DUI processes are common and effective. Nevertheless, elements from STI such as science-based knowledge and cooperation with universities can be beneficial for tourism companies (Nordin & Hjalager, 2016). DT as a process can be linked to DUI, and to bring elements from STI into the process of DT, we propose further exploring the academic work of Egger & Bulencea, who introduced the book *Gamification in Tourism (2015).* Their **Memorable Experience Design** (MED) framework suggests that PERMA elements can be evolved into ME through gamification, providing concepts and methods which can be applied as steps in an innovation process.

## 2.4 Gamification in the Innovation of Memorable Experiences

The term gamification first appeared in 2008 and is mainly used for increasing brand awareness or encouraging user engagement (Egger & Bulencea, 2015). According to Deterding (2012), gamification is a motivational design problem that can be solved with DT and other design processes in many different contexts. He further explains that companies that figure out how to effectively use gamification to amplify the intrinsic motivations of their

employees, fans and customers will have a lasting competitive edge in their markets. Nicholson (2012) states that successful gamification is user-focused. Gamification design, which does not benefit the user, can be considered meaningless and harmful to the success of a gamified product. A similar mindset is required within DT, making the two concepts a perfect match.

Gartner estimated in 2011 that 70% of the global organisations looking for new innovative approaches would be using gamification by 2014 (Meister, 2012). Gamification impact on user loyalty is seen as a revolutionary change in the tourism industry, as seen by the implementation of progress bars, points and levels in airline bonus programs worldwide. Design elements in tourism are often already present, but it is not always recognised as gamification (Xu et al., 2013). Negruşa, Toader, Sofică, et al. (2015) explain that gamification is a technique that shows significant promise in benefiting economic, social, and environmental sustainability when used in best practice. The result should not be evaluated only in terms of the sale of services or products but also by the tourist's willingness to adopt the behaviours recommended by the gamification providers (Negruşa et al., 2015). According to Xu et al. (2014), gamification is a future trend that can be applied in tourism to motivate and change behaviour. However, the subject lacks academic research. Gamification is especially under-researched in the tourism industry, and Xu et al. (2014) recommend other scholars to provide empirical studies within the subject.

Egger and Bulencea (2015) presented a Memorable Experience Design framework for developing ME. They created a theoretical link between gamification, ME and PERMA (as shown in Table 4) to develop this model. First, they mention how Rigby & Ryan (2011) studied why people get hooked on video games. This study was based on the self-determination theory (Ryan & Deci, 2000), which is tested and validated. People play video games because of *competence*, *autonomy*, and *relatedness*. Rigby and Ryan (2011) state that *competence* refers to the wish of individuals to develop abilities and gain mastery, while *autonomy* is the natural desire to act on personal wishes. *Relatedness* is the need to have meaningful relations with others.

Secondly, Egger and Bulencea present us with the types of fun people experience when playing video games. Lazzaro (2009) has defined four types of fun that will make the player return to the game. *Easy fun* is novel opportunities that aim for exploration, interaction, and imagination. *Hard fun* is keeping the player at a level of frustration that is overcome by

feelings of accomplishment. *Serious fun* motivates people to change how they think, feel, and behave in the real world. *People fun* is gaming with friends.

Lastly, Egger and Bulencea introduced the scale of ME developed by Ritchie, Kim & McCormick (2012) and link the different concepts within the PERMA model as shown in Table 4. Egger and Bulencea conclude with their work that PERMA can be used to develop ME in both tourism and games through the MED framework.

*Table 4: Gamification Linked with PERMA Model and ME (Egger & Bulencea, 2015)*

| | **Positive Emotion** | **Engagement** | **Relationships** | **Meaning** | **Accomplishment** |
|---|---|---|---|---|---|
| ***Tourism ME*** | Hedonism & refreshment | Novelty & Engagement | Social interaction with locals | Meaningfulness | Knowledge |
| ***Types of Fun*** | Easy fun | Hard fun | People fun | Serious fun | Hard fun & serious fun |
| ***Self-determination Theory*** | | Competence | Relatedness | Autonomy | Competence |

The MED framework aims for experiences to evolve from the original PERMA elements to what we now will refer to as ME-elements moving forward: *Broaden and Build, Flow, Companionship, Higher Purpose, and Self-efficacy.* To provide understanding and structure to the reader of this thesis we will also refer to the sub-elements represented between the ME-elements and PERMA-elements as *gamification concepts* (see figure 3 for visualisation). The concrete tools used to evolve PERMA to the ME-elements are referred to as *gamification methods,* which are shown in Attachment 5. Note that Figure 3 is slightly remodelled compared to Egger and Bulencea's original framework design to make it easier for readers to understand what we see as the crucial elements of the model within this thesis.

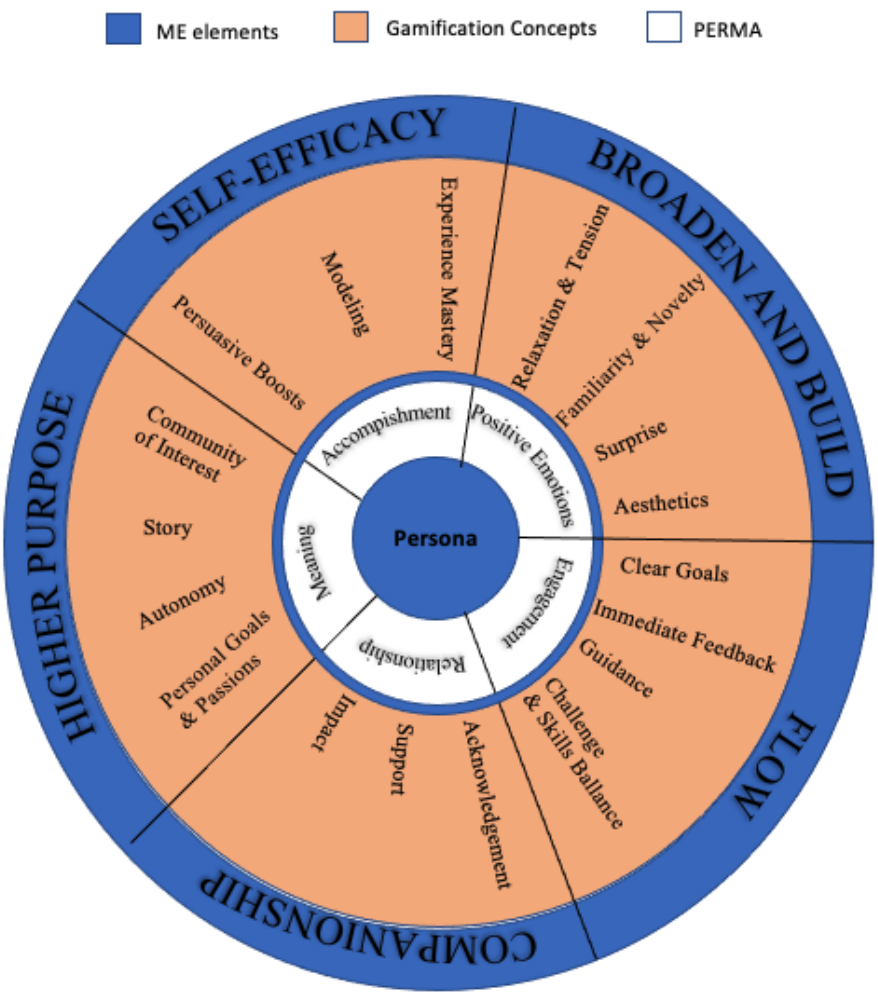



*Figure 3: MED framework*

In the framework listed in Figure 3, positive emotions are evolved into *broaden and build* through using gamification concepts and methods. While positive emotions are short-lived, they have long-lasting implications and broadens the individual thought-action tendency (Fredrickson, 1998). Suggested concepts to be applied from gamification to evolve the PERMA element of positive emotions to the ME-element of broaden and build are r*elaxation vs tension, familiarity vs novelty, surprises and aesthetics.* Engagement evolves into *flow*, which happens when the individual is truly immersed in the experience. Games use several design concepts to achieve this: *clear goals, challenge vs skill balance* and *guidance.* Video games create a different form of relationships called *companionship* (Rigby & Ryan, 2011), a feeling of fellowship and friendship. Companionship motivates people to engage in pleasurable activities. Design concepts from gamification: *acknowledgement, support*, and *impact.* Meaning evolves into a *higher purpose* by tapping into people's personal goals and passions (Deterding, Dixon, Khaled, & Nacke, 2011). Games use concepts such as *autonomy*,

*developing skills* in the individual or creating a shared *community of interest.* Accomplishment evolves into *self-efficacy* by experiencing mastery. *Mastery* is achieved by applying step-by-step achievable goals. Games also use concepts such as *modelling* and *persuasive boosts* to achieve this ME-element.

The ME-elements within the MED framework will be developed and tested with a DT approach in this study by introducing several concepts and methods from the MED framework in the innovation process. We do not intend to test all 42 gamification methods (listed in Attachment 5) presented in the MED framework but instead plan to use them as we see fit to meet the tourist demands in line with the DT process. The methods we applied in our methodology are presented below in Table 5.

*Table 5: Gamification Concepts and Methods used in this thesis.*

| ME-Element | Gamification Concept | Gamification Methods |
|---|---|---|
| ***Broaden & Build*** | Familiarity & Novelty | *Discovering* the world uncovering hidden information |
| | Relaxation and Tension | A *Boss fight* is a final challenge, testing the skills of the player. |
| | Surprise | *Easter eggs are* secrets for the player to uncover. |
| | Aesthetics | *Environment* design conveys different emotions to the tourist. A *Fantasy world* aims to create a magical world for tourists to explore. |
| ***Flow*** | Clear goals | An *Access item* unlocks part of the experience but must be earned. A *Quest p*rovides clear goals. |
| | Challenge and Skill Balance | *Levels* are different sections of a video game that get progressively harder. |
| | Guidance | *Hints* provide the player with information. *Directions* show the tourist the path to proceed. |
| ***Companionship*** | Impact | An *Avatar* lets players embody another character. |
| | Acknowledgement | *Hero of the story* cast the tourist as the hero. *Ambassador* is an honorary title that can be earned. |
| | Support | *Random grouping* is grouping random people together for experiences. *Gifting* gives the tourist the option to send and receive gifts. |
| ***Higher Purpose*** | Story | The *Scripted Story* is embedded in the experience and is the same for all players. *Epic scale* creates a feeling of being part of something bigger. |
| | Autonomy | *Open world design* is a design approach to making video games where you can explore. *Customisation* lets tourists personalise their experience. |
| ***Self-Efficacy*** | Experiencing Mastery | Structured goals are small and medium sized achievable goals. *Beginners luck* gives the tourist higher chances of success. *Enlightenment moments* occur during "aha" moments. |
| | Modelling | *Mentorship* is when someone teaches others how to complete challenges. |

The MED framework also introduces central aspects of Tussyadiah's design framework. It is built with the user persona in mind, and the authors argue that the MED framework leads to increased memorability. According to Egger & Bulencea (2015), it is essential to know who the targeted persona is when designing an experience. Game designers often use player taxonomies to understand what type of player for which they are designing. Bartle's player taxonomy in Figure 4 divides players into four categories: *killers*, *achievers*, *socializers*, and *explorers*. *Achievers* aim to complete the game at 100% in the fastest way possible, earning game points, levels or equipment to beat the game. In a tourism context, this could mean someone who travels to check various experiences off their bucket list. *Explorers* look to experience joy by exploring hidden treasures and spending much of their time immersing themselves in the world. Translated into tourism, this could be a person who visits places others seldom visit. *Socializers* search to meet other people and gain joy from interactions within the game. Many social tourists visit destinations to interact with new people. *Killers* like to compete with other players and show off their skills within the game by killing creatures or individuals. Demonstrated in tourism, this could be a traveller who searches for challenges and thrills when they visit new destinations (Egger & Bulencea, 2015). While this persona framework is central to this study, it has been criticised for not covering all types of gamers that exist and mimics common gamer stereotypes (Smith, Lewis, Hullett, Smith, & Sullivan, 2011).

*Figure 4: Bartle's player taxonomy*

## 2.5 Summary

The tourism industry has experienced radical changes due to Covid-19. As a result of this, there is a growing need for innovation in the tourism experience industry. Consumer requirements for customising ME increases, and therefore, innovation processes should be developed. Using the DT framework to develop experiences, this process will hopefully contribute to a new understanding of innovation in the tourism industry. DT is a systematic and interactive approach where the focus is on the customers and has proven to be an excellent method for designing innovation processes. In combination with the MED framework from gamification, the DUI innovation process of DT can bring elements from STI to increase the chances of the experiences becoming memorable.

There is research on both DT and gamification in tourism that shows a great promise of impact on innovation in tourism. We hope the implementation of our newly developed innovation process can provide new ways to innovate within the broader field of EE.

## 2.6 Problem Statement

The main problem statement of this research is:

*How can Design Thinking and gamification improve innovation in the development of memorable experiences in the tourism industry?*

To answer the problem statement, we will test and demonstrate our newly developed innovation process in the tourism industry at Nordkapp. Following the theoretical framework, we have designed three related subproblem statements. The purpose of these subproblem statements is to assist us in answering the main problem statement.

### 2.6.1 Subproblem Statements

a. *How can Design Thinking and gamification be used in an innovation process?*

b. *How can the combination of Design Thinking and gamification contribute to innovation output when designing memorable experiences?*

c. *How can the use of Design Thinking and gamification bring value to the innovation practice of the five experience providers of Nordkapp?*

# 3. Methodical Framework

In this chapter, we present the actions we performed to develop the innovation process. We completed experiments and interviews within the insight phase of DT (Phase 1) to empathise with the tourists. Defining problems, ideation, and prototyping (Phase 2 and 3 of the AR) were conducted in cooperation with local experience providers in Nordkapp in a workshop setting. Phase 4 of the AR exemplified the iterative mindset of DT through testing and iteration of the prototypes.

## 3.1 Case Context

We conducted this study in cooperation with five different tourism businesses/experience providers in and around the tourism destination of Nordkapp. The experience providers participated in the innovation process, designing new and hopefully memorable experiences for their target customers.

To recruit these experience providers, we sent out an email to many of the different tourism businesses around Nordkapp. We selected these five experience providers to join the process because they all expressed wishes to become more innovative in their experience development.

### 3.1.1 The Destination of Nordkapp

Nordkapp is a famous northern Norwegian destination, attracting travellers from around the world. We can analyse the destination by looking at the 2020 status analysis for tourism in the Nordkapp (Pedersen, Brunvoll, & Peters, 2020), which states current challenges and solutions. The destination is heavily reliant on cruise tourism, as transport by car and plane is unreliable in winter. Given the transportation challenges, winter tourism has not seen the growth that was expected. The status analysis raises the question of whether it is even a realistic ambition to realise Nordkapp as a winter destination. The destination faces several barriers to innovation. While some tourism businesses have shown increased willingness to fund development in recent years, there is still a lack of differentiation between the products. The status analysis suggests that there could be elements of cannibalisation and price wars internally, and products are not well adapted to the individual tourist.

The status analysis also conducted in-depth interviews with tourists and industry experts. Most tourists come to see Nordkapp, and then leave again. The interviews point to a lack of available tourist experiences or other reasons to stay. Some respondents point out that other similar destinations have increased their attractiveness, while Nordkapp has ended up as a stopover on a round-trip. One tour operator claims that the destination has all it takes to make guests stay longer, but there needs to be an increase in experience quality. The unique competitive advantages Nordkapp possesses must be turned into experiences. The status analysis has set a few goals to combat these barriers to the development of Nordkapp:

1. Nordkapp should be perceived as a future-oriented, dynamic and visionary destination, with the ability to innovate in line with trends and demand in the market.
2. Increase their traffic and revenue - especially in the months before and after June, July and August.
3. Continually working to solve the infrastructural issues.
4. Become a knowledge-based destination and work as an important carrier of knowledge in the Norwegian tourism industry.

### 3.1.2 The Five Experience Providers Participating in the AR Project

The status analysis points to weak systems for cooperation (Pedersen et al., 2020) and working with new systems for innovation may be beneficial. Therefore, we asked the five experience providers from Nordkapp, listed below in Table 6, to participate in this AR project. Through their participation, they delivered critical feedback to our proposed methodical framework and worked towards solving several important challenges in a workshop setting.

*Table 6: Case Companies and Participants*

| Company | Description | Participant |
|---|---|---|
| ***Destinasjon 71° Nord*** | An outdoor adventure company located in Honningsvåg, Norway. Provides a wide range of experiences including: ATV safaris, ocean rafting and snowmobile safaris. Their most popular product is the king crab safari. They also provide accommodations and food services and consist of 10 employees. | Sales & Operations Manager |
| ***Tamsøya AS*** | Store Tamsøya is an island located in Porsangerfjord. Tamsøya AS is a family business that provides experiences ranging from hikes, cloudberry harvesting and ocean rafting. | Marketing & Hospitality Manager |

| | | |
|---|---|---|
| ***Aurora Glamping Kokelv*** | Aurora Glamping is located in Kokelv and provides facilities for glamping and luxury cabins. They are also looking to widen their offers with new experiences. | Founder & CEO |
| ***Cape Fish Group*** | Cape Fish Group are mainly involved in the fisheries industry but have successfully realised several tourism projects. They own both the experience provider Nordkapp Safari and the hotel "The View". | CEO & Sales Manager |
| ***Tourism Start-up*** | Tourism Start-up that aims to provide experiences related to the cultural heritage of Børselv. They are still developing their first concepts and brand. | Founder |

## 3.2 Action Research as a Method and Approach

The aim of AR is to investigate and solve practical problems within an organisation or community and represents a meeting between theory and practice (Bradbury-Huang, 2010). By taking action, new insights are achieved, and knowledge gained. AR is not a one-sided process only seen from the researcher's perspective. The client is seen as the co-researcher (Sander, 2019a) and contributes to solving their own problem (Johannessen, Tufte, & Christoffersen, 2016). The client and the researcher commonly work together to frame the existing problems based on specific identified symptoms. From there, a solution is developed, and the AR becomes a part of the change process. Involvement with the clients concerning important issues provides a richness of insight that cannot be gained in other ways (Argyris, Putnam, & Smith, 1985). AR involves an iterative process of several phases and is a diverse subject. There are many different ways to practice it, and the researchers are in great freedom to choose how to best answer their research question (Bryman & Bell, 2011).

Our study has value for solving practical problems for the tourism industry at the destination of Nordkapp while aiming to contribute to new knowledge within gamification and DT to design ME. To use this approach, it is required by the researchers to get a holistic understanding of the research environment and branch (Baskerville & Wood-Harper, 1996). Johannessen et al. (2016) emphasised the importance of the researcher's presence throughout the process, and our holistic understanding was further developed by being present at the destination for 36 days on two different occasions.

### 3.2.1 The Action Research Process

Similar to other qualitative methods, AR is criticised for its lack of repeatability and rigour and concentrating too much on the organisational action at the expense of the research findings. Therefore, we aim to achieve scientific rigour by following Susman & Evered (1978) cyclic "five-step" process that contains: (1) problem framing, (2) action planning, (3) action taking, (4) evaluating and (5) reflection.

***Problem framing*** is the starting point of the research. In cooperation with the experience providers of Nordkapp, we framed problems in line with the research question of the study and the practical problems of the destination.

In the ***action planning phase***, we planned what kind of actions we were going to implement in our research and how we intended to implement them. Then the planned actions were implemented in the next phase of our research, ***taking action***.

Continuing the cycle of the AR process is ***evaluating***. Researchers evaluate the outcomes, which include determining whether the theoretical effects of the action were realised, how these effects relieved the stated problem and if the change was successful (Baskerville & Wood-Harper, 1996).

We completed the ***reflection phase*** by reflecting on the learning outcome along with the clients. Reflection is a big part of AR and is ongoing throughout the process, especially within the different action phases.

The ***meta reflection*** cycle is a continual process of reflection that is taking place throughout the AR process. Coghlan & Brannick (2005) explain that this reflection occurs by creating a new meta cycle parallel with the main activities in the cyclic process in the research.

Both Baskerville &Wood-Harper (1996) and Argyris, Putnam & Smith (1985) explain that AR is a cyclic process that should be repeated to increase both knowledge and validity. Because of the time limits and all the factors required to carry out an AR process with approved validity, we only had time to run it once. For this reason, it was necessary for us to use a lighter version of the AR process.

### 3.2.2 Implementation of the Action Research Process

The AR process was completed through four DT-phases. Each phase is based on a cyclic process, where changes to the problem statement can occur throughout the process. Therefore,

it is essential to precisely document and define which actions lead to changes in the process. Figure 5 shows the cyclical processes that were conducted. Each phase of DT is considered a round in the action cycle. The first round of the AR process conducts the Empathise Phase of DT followed by the Define Phase, the Ideation & Prototype Phase, and the Test & Iteration Phase.

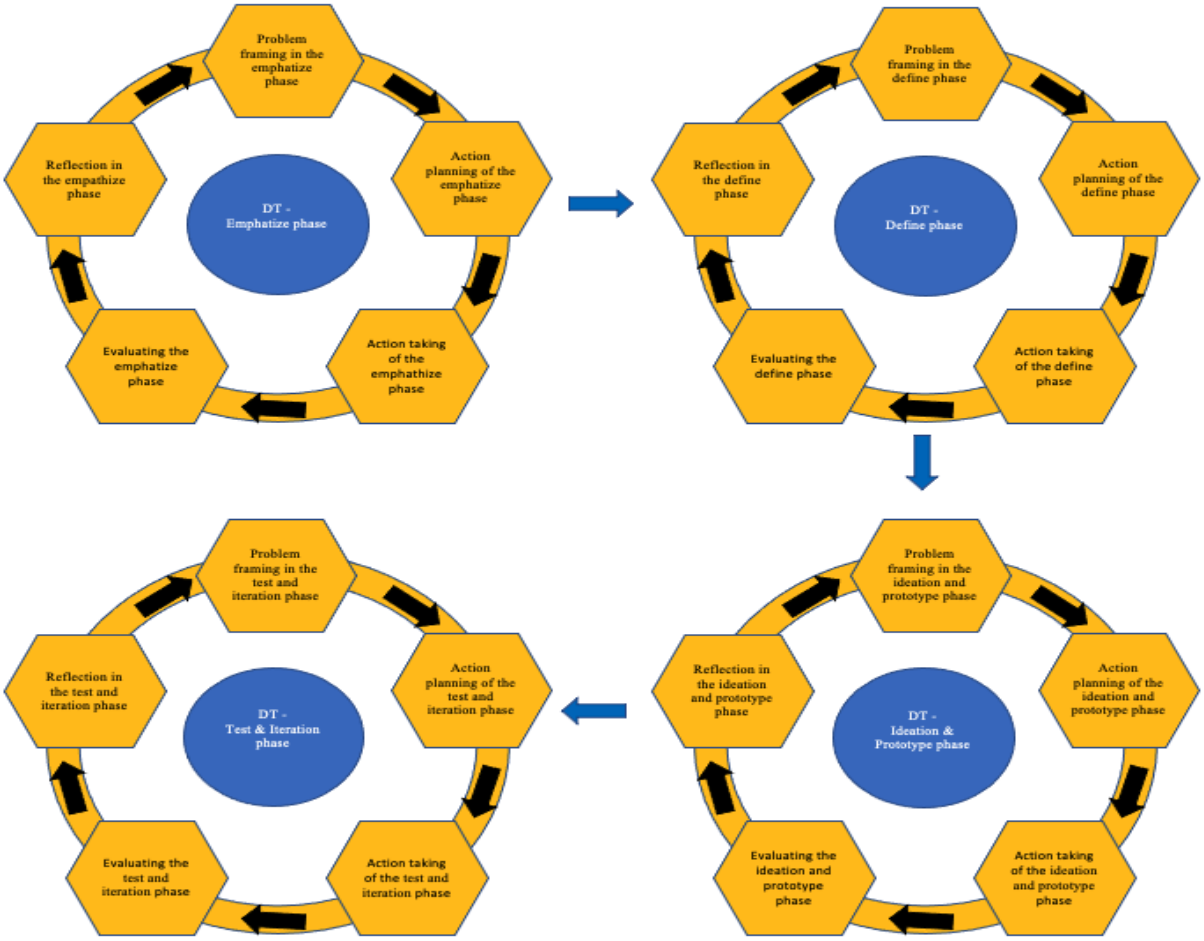



*Figure 5: Integration between the DT and AR processes*

### 3.2.3 Data Collection

Coughlan & Coghlan (2002) points out that AR is not dependent on one specific data collection method. Instead, it can include all types of data, and it depends on the type of insight needed to answer the research question. In our case, this means using several methods that fit the different phases in our thesis, as shown in table 7.

To organise the data, we contributed to developing a new DT-based digital innovation platform in collaboration with the Icelandic consultant company East of Moon. Insights were uploaded to the platform in the Empathise Phase, challenges in the Define Phase, ideas in the Ideation & Prototype Phase and projects in the Test & Iteration Phase. The digital innovation

platform can be found here: https://nordkapp.missions.dev/no/. Visiting this platform will show all the insights, challenges, ideas, and prototypes collected and developed in this process. This was a beneficial asset to the practical innovation process, ensuring no insights were forgotten nor any ideas lost. The platform also opens for continuous collaboration between the experience providers of Nordkapp after the end of this project.

*Table 7: Data Collection Method in the Context of DT*

| DT Phase | Data Type | Data Collection Method | Purpose | Phase in Platform |
|---|---|---|---|---|
| ***Phase 1: Empathise*** | Qualitative data users and industry experts | Introduction meeting 10. Feb 2021 & In-depth interviews 11. Feb - 28.Feb 2021 | Defining design challenges based on gathered insights & user insights |   |
| ***Phase 2: Define*** | Observation and qualitative data from the workshop participants | Workshop 2. - 3.Mar 2021 | Defining problems based on the gathered insights |   |
| ***Phase 3: Ideation & Prototyping*** | Observation and qualitative data from the workshop participants | Workshop 2. - 3.Mar 2021 | Ideation that solves the defined problem and light prototypes of these ideas |   |
| ***Phase 4: Test & Iterating*** | Observations from user interactions with the prototypes and qualitative data | In-depth interviews & Observation 10.Mar - 10. Apr 2021 | Feedback from potential customers for further iteration on the developed prototypes |   |

## 3.3 Round One of the Action Research Process – Empathise Phase of Design Thinking

In the first round of AR, we implemented the Empathise Phase of DT by developing new methodical steps to understand the tourists' emotions. We evaluate and reflect on the actions conducted during the planning and execution of the AR.

### 3.3.1 Problem Framing in the Empathise Phase

We, as researchers, defined the area for change after the introduction meeting with the local tourism operators (see Table 6), where we discussed how to implement DT within product development for experience providers at Nordkapp.

For years, Nordkapp saw an increase in bigger groups of travellers, such as cruise tourists; however, they had not prioritized individual travellers. As a result, they were unable to attract enough domestic tourists during the summer of 2020. In cooperation with the experience providers, we decided that the study should aim to contribute to developing new tourist experiences. Getting an understanding of the market through insights was considered necessary. Considering this, we reframed the problem:

*How can user insights help tourism businesses develop ME that will attract individual travellers?*

### 3.3.2 Action Planning of the Empathise Phase

In the first round of AR, we conducted Phase 1 of DT, emphasising empathising with the tourists and understanding their needs through insights. We collected insights in three different ways from industry experts and potential customers. The aim was to clearly define what individuals are looking for in a tourism experience. The empathetic understanding of user needs is an important element of Phase 1 of DT, and it was essential to choose methods that had an empathetic design.

Collecting insights as a form of data collection aims to map out customer needs that lay the foundation for further planning and action in the DT process. In depth-interviews were selected as the data-collection method. We uploaded the insights to the digital platform, easing communication towards the local community.

Given that DT wants you to focus on what the user feels and thinks, we chose to let the common thread of our project be the PERMA model, as this model helps understand ME. We understood that we need to know what leads the user to feel positive emotions such as

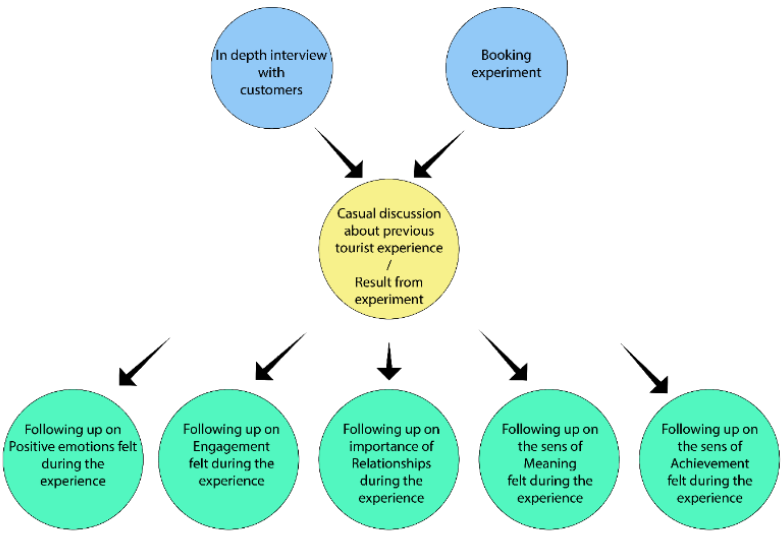



*Figure 6: Insight Interview Model*

engagement, positive relationships, mastery and accomplishment. Since we planned on having unstructured casual interviews, we constructed several open-ended questions that we could use situationally when conducting interviews, as seen in the insight interview model in Figure 6.

**Selection and Recruitment**

In line with the qualitative method, we implemented strategic selection. In practice, this means strategically choosing the target group to collect the necessary data. We used the snowball method to recruit informants (Johannessen et al., 2016). We asked every informant to suggest someone they thought could be relevant for us to interview. This ensured a speedy process and that anyone we talked to was either in the target group for experiences in Nordkapp or had relevant knowledge about the target market. We had to collect many insights in a short time to gain a holistic understanding, and the snowball method was identified as the most rapid solution.

Tourists are the decision-maker; therefore, we considered it essential to go straight to the source and speak with tourists themselves. We did not differentiate by different types of tourists as we hoped to gain insights on what type of traveller would be easiest to target for Nordkapp. The choosing criteria were that the potential tourists showed an interest in Arctic travel destinations. We also wanted to gain insight into Nordkapp as a tourism destination approached individual travellers today versus how other destinations understand their tourists. With this in mind, we felt it necessary to speak with industry experts as well.

First, we conducted expert interviews with specialists in the local community of Nordkapp. We conducted one interview with the current destination management and four interviews with operational managers in the area. We also spoke with the Director of Economic Development for the municipality, who is in charge of tourism planning.

Secondly, we conducted interviews with industry experts outside and within the community of Nordkapp. We held two interviews with destination management in other parts of Norway. Lastly, we interviewed a teacher in higher education experience design and two more interviews with booking agents.

*Table 8: Data Collection Methods in the Empathise Phase*

| Type of Data Collection | How | How Many |
|---|---|---|
| Booking experiment | Observing how individuals react to the booking process of an individual trip to Nordkapp through screen share | 8 interviews |
| Unstructured customer insight interviews | Active listening: Discussion about Nordkapp and tourism experiences in general | 12 interviews |
| Unstructured expert interviews | Identifying trends and what tourism experiences are attractive in the market. | 11 interviews |

**Privacy and Consent**

The data we collected came in the form of insights from interviews with our informants. We captured every insight that gave a new point of view or pertinent knowledge for our study. To avoid any potential challenges related to GDPR, we decided that there was no need to gather any form of personal data other than the insights provided by the interviews.

### 3.3.3 Taking Action

**In-depth Interviews with Tourists**

The action stage is about executing the planned changes. So far, none of the experience providers participating in the introduction meeting had conducted experiments or in-depth interviews with potential tourists. The knowledge they had about their guests originates from selling experiences and getting feedback. As mentioned in the case description, most people come to Nordkapp as part of a round trip. We wanted to figure out what type of individual would choose Nordkapp as their prioritised destination. Therefore, there is no point in interviewing subjects that visit as part of a round trip, and we conducted interviews in a more neutral setting applying the snowball method. The snowball method showed effectiveness for recruiting customers in the target market for the Nordkapp region, as most of the people we talked to expressed a wish to explore the area. Some subjects previously visited the destination and wanted to return. Some had not been there yet but planned to do so in the future. To empathise with the tourists, we executed two types of unstructured online interviews: In-depth interviews and a booking experiment.

The ***in-depth interviews*** were done by casually speaking with potential tourists. The goal was to see what would happen if the interview subject could lead the conversation in their desired direction. We made sure to ask open questions, follow up on things they said and actively listen for new insights. According to Silverman (2014), active listening lets the interview

subject tell you their own opinion while considering the common thread of the project in your questions.

The ***booking experiment*** was done by following and discussing a regular user's behaviour when booking accommodation and experiences through screen share. By doing this, we could see which products were popular and which experiences they felt were missing.

As mentioned above, PERMA was the common thread within the tourist interviews, as we investigated how relevant the different types of positive emotions are for different people. The methodical steps in Figure 6 illustrate this. Whenever we learned something new or found insights, we followed up on questions concerning the PERMA model.

**In-depth Interviews with Experts**

The experts varied to a significant degree within their specific skills and competence. As the goal was to gather new insights, we customised each interview for the expert we were interviewing. Concerning the interviews with the local industry experts, our goal was to figure out what was important to people who visit Nordkapp, identify how they work with innovation in experiences now, and what opportunities they see in the future. We were curious to determine what type of travellers had a deep passion for Nordkapp and why. For the other tourism experts, we wanted to understand how they worked with innovation compared to the industry in Nordkapp. Here, the focus was not on understanding the individual tourist but rather on identifying general trends in the industry.

### 3.3.4 Evaluating the Empathise Phase

AR should be conducted in real-time (Coughlan & Coghlan, 2002) to achieve understanding and change simultaneously (Johannessen et al., 2016). We realised that while the insights collected in this phase are important for designing successful experiences that focus on individual travellers, we still needed to implement the DT way of looking at product development in Nordkapp.

After each interview, we continually reflected and evaluated the questions we asked to get more accurate insights from the interview subjects. The booking experiment gave great results as it provided the opportunity to understand what the subjects wanted to experience on vacation. We received many new insights into what factors made Nordkapp unattractive to them. The tourist interviews provided a deeper understanding of what individuals look for in a

tourist experience. Letting the tourists lead the conversation proved to be the right decision as many of the interview subjects provided valuable information unknown to us previously. The tourist interviews conducted rewarded us with a total of 48 new user insights. The PERMA model worked as a guiding principle, ensuring we asked the right questions and received insights related to how tourists experience these positive emotions.

Customising the interview for each tourism expert also provided results. For example, a booking agent could give valuable information on how high-end and bigger groups think when travelling. At the same time, destination management could provide valuable insights into successful experiences in their region. The expert interviews provided a total of 27 new insights which could be used for defining design challenges in the second phase of DT, identifying new trends and new points of view for innovation. All insights were tracked within the digital innovation platform, and a visual representation of the most important insights can be found in the Results chapter.

### 3.3.5 Reflection of the Empathise Phase

After completing the first phase of DT, we felt we had a deep enough understanding of the tourist's point of view. Given more time, we could have increased the number of interviews and developed a more differentiated selection. However, at this point, we believed we interacted with a sufficient number of tourists and experts and felt ready to move on to the next phase.

PERMA is a good tool for empathising with a tourist; therefore, we decided to continue working with the framework in the next phase. We learned that PERMA is experienced differently from person to person and that we need to structure the insights to exemplify this.

While the digital database helped communicate our findings, we were still unsure how to illustrate the insights to the local community. The sheer number of insights made it hard to communicate them simply and effectively. We decided to include the five experience providers more actively in the research project and invited them to help us experiment with our findings in a ME design workshop.

## 3.4 Round Two of the Action Research Process – Define Phase of Design Thinking

In the second round of AR we explain how we implemented the Define Phase of DT through introducing gamification. We adapt a player-taxonomy persona structure to our context and

develop a novel tool to assist the experience providers in understanding the insights through PERMA. We evaluate and reflect on the actions conducted during the planning and execution of the AR.

### 3.4.1 Problem Framing in the Define Phase

To obtain results in the subsequent phases, we needed to communicate our results from the Insight phase to the five experience providers. The goal of this phase was to frame design challenges. To do so, we iterated the problem statement:
*How can we visualise the collected insights and define design challenges which can be solved through experience design?*

### 3.4.2 Action Planning in the Define Phase

The first phase showed us that we needed to communicate our insights in an understandable way for the local tourism community. A common method in DT for visualising insights is to describe a customer persona. It can assist the product designer in identifying the user's needs and desires. The persona makes communication easier and represents the person that a product aims to reach (Chasanidou, Gasparini, & Lee, 2015).

To merge gamification and DT, we built our personas around Bartle's Taxonomy of player types. We applied the taxonomy to provide a structured tool for categorising different ways to experience PERMA, as discussed in the previous reflection. This tool could also potentially assist in communicating the results of Phase 1 to the participants. Kim (2012) argues that Bartle's player taxonomy model is not the most fitting model for gamification without further modifications. Therefore, as we are in a tourism context, we will modify the player name of "killer" to a more tourism-suited "thrill-seeker". We expected the other types of players, such as explorer, socializer, and achiever, to be easily understood by the workshop participants. We applied Bartle's taxonomy as a base for defining personas, developing them further using insights collected in the Empathise Phase. This made it possible for us to define new or confirm existing characteristics of the different player types. When analysing the insights, we imagined what player persona the informants would fit into; for example, we could identify the *thrill-seeker* by their desire to hunt for new challenges and skills. The *achiever* wanted to travel to Nordkapp to check it off their bucket list. When someone expressed wishes of

exploring and finding those hidden gems, we could identify that person as an *explorer*. A *socializer* travels to meet new people or experience something new with friends.

Framing a design challenge or defining a problem is an essential part of DT, and in this phase, we planned the workshop. As co-researchers, the local community needs to be able to impact the study. To ensure the experience providers found the workshop meaningful, we aimed for them to define their own design challenges based on our gathered insights. After categorising the insights within Bartle's taxonomy and visualising the personas and insights through the digital platform, we developed a tool that the experience providers could use to understand further how the defined personas experienced PERMA. To achieve this, we developed what we call the ***PERMA map***, where we drew inspiration from the DT tool empathy map (Siricharoen, 2021) and the five elements of PERMA, as shown in Figure 7. By assisting the experience providers in understanding the important elements of positive emotions, engagement, relationships, meaning, and accomplishment, this tool will help them gain a deep understanding of the insights. This exercise aims to explore further how the different types of persona can hope to achieve memorable tourism experiences, which will help create design challenges by understanding pain points.

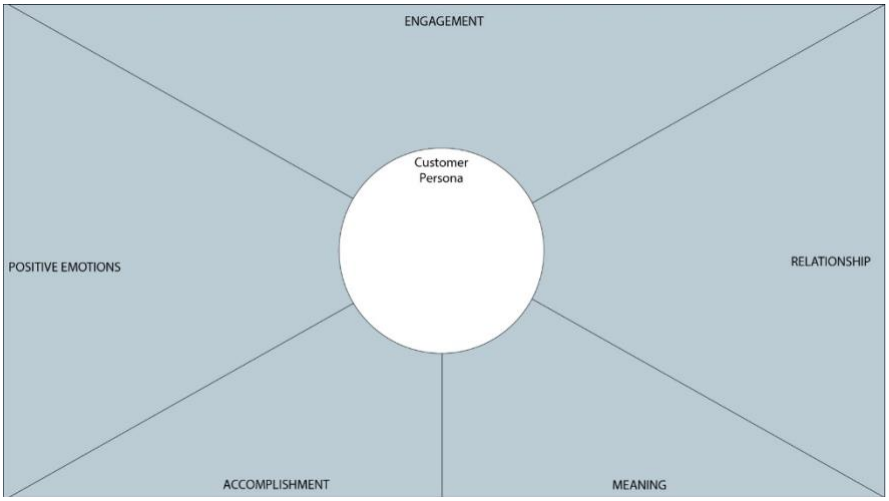


*Figure 7: The PERMA-map*

Role play is a common exercise in DT that is used as a tool to provide an empathetic mindset towards the customer. This exercise seeks to provide an empathetic mindset towards the customer (Seidel & Fixson, 2013). We designed a role play exercise for the experience providers to play the part of one of the personas, with the goal being to produce output as defined design challenges. This is also a great way to get the creative juices flowing (Karwowski & Soszynski, 2008). We planned to group the workshop participants in pairs and let them interview each other. The interviewer asks questions investigating different challenges that the four personas would face when visiting Nordkapp. The exercise should

last five minutes for each persona, and the experience providers would write down each problem they could think of, resulting in defined design challenges as output.

**Selection and Recruitment**

The selection consisted of the five experience providers mentioned in Table 6.

### 3.4.3 Taking Action – Workshop Day One

Six participants from the five experience providers were present in the workshop. For the full agenda of the workshop, see Attachment 6. We, as researchers, took on the role of facilitators. The workshop started with everyone introducing themselves and what experience they had as experience designers. They had very different backgrounds, but they all had the same goal, to create ME to attract individual tourists to visit Nordkapp. The workshop started by discussing the findings of the insight phase with the five experience providers. To begin, we held a roundtable discussion so all participants could share their thoughts and ideas. Next, we put the participants in pairs, instructing them to write down their opinions about the related personas supported by experience-based insights. After getting familiar with the insights, we instructed the participants to fill in the PERMA map.

The next step was introducing the experience providers to role play. We instructed the interviewers to take on the role of investigating what problems the persona faced, while their partner would take on the role of the persona. They asked questions such as, *"you are an achiever, and you have just seen the Nordkapp plateau, checking off your bucket list. What do you do for the next three days?"* and asked to follow up with critical questions. While doing this exercise, they took note of different challenges the personas met and presented them to the group.

### 3.4.4 Evaluation of the Define Phase

The workshop started with us presenting the results from Phase 1 to the experience through Bartle's taxonomy. Observing the experience providers' work with the personas, it was clear that the personas were relatable. While discussing the topic, they all agreed they had worked with these people before and there was a lack of products targeting the different visualised personas. We present the characteristics of each player persona in the Results chapter.

The PERMA map turned out to be a great introduction to understanding the PERMA model. The participants quickly understood the psychological factors necessary for ME. Some of the participants had issues filling out the map within the time limit. However, the sum of suggestions on how the different Personas experienced the positive emotions in the PERMA model was sufficient enough so that the participants gained a more holistic understanding of the insights. The PERMA map was a valuable tool for framing design challenges, as it required the workshop participants to use an empathetic mindset to fill in the blanks of the map.

The role play exercise worked great as a tool to quickly produce design challenges. Although some of the suggested challenges were "wicked problems", we as facilitators did our best to assist the participants in reframing the issues. This stage of the process resulted in 14 different design challenges, giving the participants plenty to work with in the next phase. These can be found in the digital innovation platform, as well as in the Results chapter.

### 3.4.5 Reflection of the Define Phase.

In the digital introductory meeting, we suffered from talking over people's heads, making DT too complicated. As students, it is not easy to be pedagogical. However, when we divided our insights into the player taxonomy, the process suddenly seemed clear to the participants, underlining the importance of using tools to communicate during the innovation processes (Micheli et al., 2019). Show, do not tell, is a core element of DT, and this proved essential for our workshop to be successful.

The insights collected lead to many enlightenment moments for the participants. Some of the insights lead to surprises, while other insights had the participants nodding in agreement. The developed tool for empathizing with users called PERMA map furthered our understanding of the importance of these elements. Reflecting on the matter, we would argue that it is of utmost importance when designing an experience to understand how the tourist experiences positive emotions.

We now had a total of 14 different challenges to solve. While we were sure that the participants would come up with many new ideas, we still had not figured out how to effectively develop new ideas into prototypes. We were also unsure how to make the experience ideas memorable through the use of PERMA.

## 3.5 Round Three of the Action Research Process – Ideation & Prototype Phase of Design Thinking

In the third round of AR, we explain how we implemented DT's Ideation & Prototype Phase. This phase starts with ideation & moves into screening, developing and prototyping ideas through newly developed innovation tools based on gamification. We then evaluate and reflect on actions taken during planning and execution.

### 3.5.1 Problem Framing in the Ideation & Prototype Phase

The learning and reflection in phase two of DT made us define our problem definition further. We now had a more thorough understanding of how to communicate insights to define design challenges. In this phase, we need to ideate on the design challenges and find a way to prototype experiences. The new problem definition is as follows:

*How can we ideate effectively from the proposed design challenges, and how can the prototypes incorporate elements from PERMA to create ME?*

### 3.5.2 Action Planning of the Ideation & Prototype Phase

First, we needed to decide how the ideation phase would happen. We chose to divide this into two parts of one divergent phase and one convergent phase. Both ways of thinking are considered necessary for creativity in design literature (Goldschmidt, 2016). To get the five experience providers in a positive and creative mood, we suggested playing an aspirational game called “Nordkapp in 2031 - A Positive Front Page”. Participants were instructed to draw the front page of a newspaper ten years from now about Nordkapp. To ideate, the plan was to present the problems by order and have the five experience providers use one minute to write down as many ideas as possible for each design challenge. This was achieved in a brainstorming setting, as suggested by Sander (2019b).

After the ideation phase participants screened their ideas, choosing the best ideas to develop further. Following Egger and Bulencea (2015) and their work on the MED framework, we hoped to transfer this knowledge by scrapping ideas where it was hard or impossible to apply gamification in the design process. Ideas were screened by analyzing whether the different ideas could reach the ME-elements listed in the framework. To be able to use the MED framework for screening ideas, we designed a new tool. Named the ***MED canvas*** (see Figure 8), we designed this innovation tool to simplify the MED framework for the experience providers. The map makes the user question if and how it is possible to use gamification to evolve PERMA elements to *broaden and build*, *flow*, *companionship*, *higher purpose*, and *self-efficacy*. The MED canvas is also a central part of our plan to develop good ideas into prototypes that can become ME.

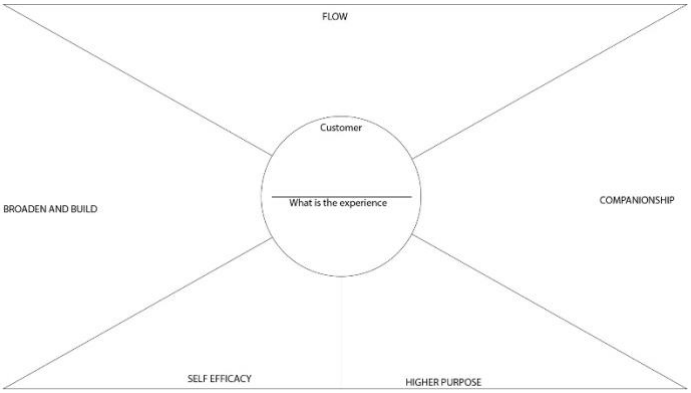


*Figure 8: MED canvas*

To increase the chances of applying game elements, we handed out five folders consisting of gamification methods suggested by the MED framework illustrated with local examples (see Attachment 5). For example, the ME-element *broaden and build* would have a gamification concept of *relaxation and tension.* These concepts are related to gamification methods such as *boss fights* or *life-vests*. A local example of this would be at a King Crab Safari: *The boss fight* would be to kill a king-crab with your bare hands at the end of the Safari. The *life-jacket* would be after the experience where you can relax and eat the King Crab. A complete list of concepts and methods used in this thesis can be found in Table 5.

As humans, we are very different regarding what captivates us, but the captivating patterns we find attractive are similar. According to (Schell, 2008), a successful experience must keep the user engaged. To further prototype the experiences, the plan was to use interest curves, a common tool for designers in both video games and tourism experiences, to create engaging experiences. We

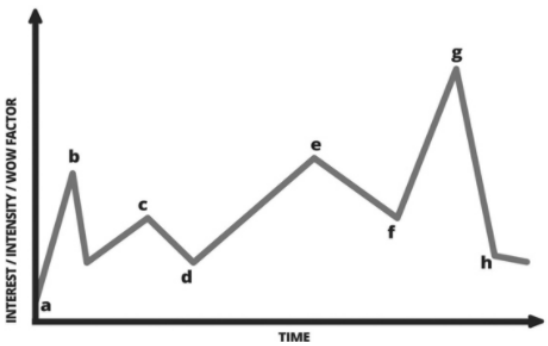


*Figure 9: Interest Curve (Schell, 2008)*

exemplify a standard video game interest curve is in Figure 9: a hook that is point B in the interest curve, game levels that gradually intensify interest as seen in point C-F and then a climax as seen in point G. This shows us how interest within an experience has exciting peaks and relaxing lows, increasing the chances of experiencing well-being (Egger & Bulencea, 2015). We intended for this exercise to find a fast and effective way to prototype new experiences without much detail. The plan was for the participants to use this curve to structure ideas and identify the hook and climax within their experience idea.

### 3.5.3 Taking Action – Workshop Day Two

Starting with the warm-up exercise, each of the five experience providers presented their idealized version of Nordkapp as a tourist destination in a newspaper article. The experience providers identified with the same goal; for Nordkapp to be a destination that other destinations in Norway looked up to, and they aspired for successful cooperation between the local tourism businesses.

The 14 design challenges were presented to the five experience providers one by one. They used one minute to write down ideas on post-it notes for each design challenge, and the participants worked diligently to come up with several ideas in a hurry. The divergent ideation phase ended up with a total of 143 ideas uploaded into the digital innovation platform. We asked them to choose three ideas that they found enticing to develop further.

We applied the MED canvas tool to screen ideas. Some of the ideas hit the nail on the head, while others were difficult to adapt. We instructed the participants to continue working with the ideas that showed promise of evolving from PERMA elements. The ideas that fit into the MED canvas had central game design elements to develop further, as described in Table 9. The ideas which were difficult to develop within the framework were left behind.

Each experience provider had one idea they wanted to develop further and prototype after this exercise. They targeted the products for a specific persona and implemented gamification in all the different concepts using the MED canvas. The five prototypes can be found here in the digital innovation platform.

*Table 9: The Chosen Ideas from the Ideation Phase*

| The Five Experience Providers | The Idea | Target Persona |
|---|---|---|
| ***Destinasjon 71° Nord*** | *Climbing the net at Nordkapp.* This idea was to let tourists experience the final of the TV show "71° Nord". | Thrill-seeker |
| ***Tamsøya*** | Tamsøya realized that their potential does not concern more products but rather making the already existing products better. Hence, Tamsøya continued developing the concept *Cabin to Cabin at Tamsøya* through gamification and Design Thinking. | Explorer |
| ***Cape Fish Group*** | Activity Park for families. As Nordkapp lacks offers for the families, they wanted to create an activity centre containing many different activities. They wanted to research what type of activities were most likely to succeed and inquire how to use gamification to create a truly innovative activity centre through DT. | Achiever |
| ***Tourism Start-up*** | The Kven Museum. A guided tour to a different culture. Visiting authentic and protected living quarters of Kven people, learning how they lived as indigenous people in Finnmark. | Socializer |
| ***Aurora Glamping*** | Team building event concept. Aurora Glamping wanted to investigate how to apply gamification in a team building setting. | Socializer |

They applied the interest curve after filling out the MED canvas, noting where they applied gamification concepts and methods. The interest curve identified the location of the exciting and relaxing moments in the experience prototype. Everyone managed to identify a climax of their experience and successfully implemented it at the right moment, as described by Egger and Bulencea (2015). You can find an example of the interest curve in the Results chapter.

### 3.5.4 Evaluation of the Ideation & Prototype Phase

The warm-up exercise resulted in getting the participants in the right creative mindset as early as possible in the workshop. We observed that some of the participants were, to a certain extent, uncomfortable in the beginning due to them being competitors. They described the exercise as a game-changing tool to get them in a creative mindset and loosen up the mood in the group before heading on to the ideation.

There was no lack of ideas for tourism experiences in Nordkapp. The rapid ideation seemed to take the pressure off the participants. Using design challenges to ideate worked as it gave the participants clear goals for coming up with ideas. The MED canvas worked to be an excellent

screening tool for the ideas, as it made it easier for the participants to choose what ideas they wanted to prototype. However, the sheer complexity of the MED framework proved to be a challenge within the process, as we did not plan enough time for the participants to achieve familiarity with gamification. This resulted in a lack of implementation in game design methods within the prototypes. We attempted to solve this by facilitating our knowledge, demarcating which aspects of the MED framework the experience providers should apply their focus. The interest curve, on the other hand, was an easy tool for the participants to use. It was quick to prototype experiences, and the curve clearly stated the timeline of the experience and the different elements incorporated to make it memorable.

### 3.5.5 Reflection of Ideation & Prototype Phase

The prototypes focused on different ME-elements, concepts and methods in the way they implemented gamification. We learned that motivational game design elements are possible to apply to many different experience ideas. Game design is a complicated subject, and aspiring to make perfect prototypes based on gamification in one workshop was challenging. In retrospect, we should have had more time with the participants in the Ideation & Prototype Phase. The MED canvas did ease the process, giving clear goals and a structure.

This was also the part of the workshop that the experience providers found the most interesting, as they learned new perspectives on experience design; however, it did not meet their expectations. They were under the impression that ideas had to be “high-tech” in order to implement gamification. However, they now understood that gamification could be added to most experiences to increase the motivation of individuals.

In retrospect, we would have developed another tool for prototyping. We can see how games use levels to increase *flow*. To continually reach a *challenge/skills balance,* each level gets progressively more challenging. We were too straightforward in our presentation of game design elements and should have introduced the experience providers to this way of thinking more intuitively.

Our observations made us understand that the experience providers lacked understanding of why they should use the interest curve. Looking back, we could have made this clearer, but it provided us with enough structure to further develop the ideas in the test phase.

## 3.6 Round Four of the Action Research Process – Test & Iteration Phase of Design Thinking

The fourth round of AR presents how we implemented the testing and iterations phase of DT. In this phase, we tested the prototypes on potential tourists and did iterations through adapting the MED canvas. We evaluate and reflect on the actions conducted during the planning and execution of the AR.

### 3.6.1 Problem Framing in the Test & Iteration Phase

To finish the last step of DT, we needed to test and iterate the ideas based on customer feedback. While the prototyping tools worked as intended to structure the experiences with gamification concepts and methods, the travel restrictions of Covid-19 made it challenging to test the tourism experiences in an authentic setting. Thus, we needed to be creative in testing the implementation of game design elements. A new problem definition arises from this issue: *How can we use Phase 4 of DT to test if the gamification concepts and methods are working towards creating ME for tourists?*

### 3.6.2 Action Planning of the Ideation & Iteration Phase

As Tussyadiah (2014) suggests, an iterative design process is vital for creating ME and a central principle of DT. The goal is to improve the functionality and quality of the design. We would have enjoyed repeating several rounds of iterations on the experiences but quickly realized in planning that we just had time for a single test phase. According to Osterwalder & Pigneur (2010), one develops prototypes to explore a product's potential and make abstract concepts more tangible. The prototype should summarize the essence of the intention behind the product.

We designed one-pager descriptions of the concepts based on the participants' work on the MED canvas and the interest curve. The goal of this phase of DT should be to spend a minimal amount of time and resources on developing prototypes (Brown, 2008). A one-pager is a resource-effective way to visualise ideas through an A4 page with descriptions and pictures of the experience. The one-pager aims to demonstrate the concepts for potential tourists, gathering feedback, and finally iterate on the prototypes.

We planned to execute the iterations applying concrete gamification methods (as listed in Table 5) from the MED framework. We hoped this would make our iterations contribute to increased memorability. Suppose we can identify how an experience is lacking regarding the ME-elements of gamification. In that case, we can apply the gamification concepts and methods from the MED framework to iterate well-reasoned changes. The whole process we used to test and iterate on the products can be seen in Figure 10.

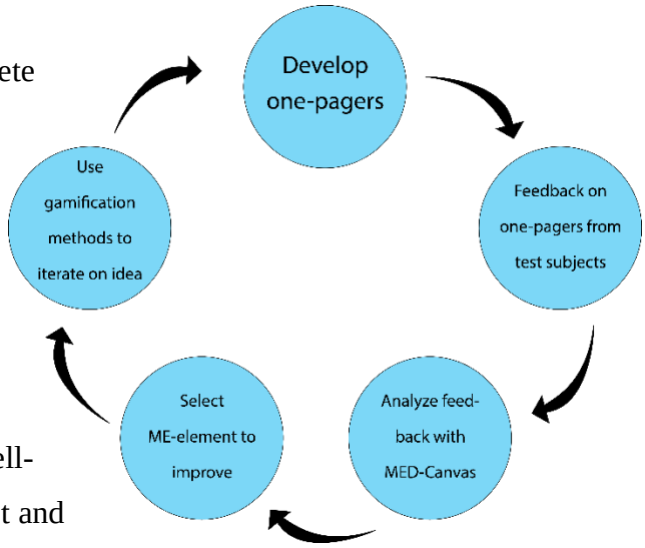



*Figure 10: Test & Iteration*

We did this process once for each of the ideas, interviewing ten tourists, receiving feedback, and doing one iteration for each ME-element.

We planned the interviews as semi-structured, focusing on identifying which ME-elements to improve within the experience. Our intention was not to explain the framework to tourists but rather ask open-ended questions investigating how individuals anticipated if they would experience the ME-elements. You can find examples of these questions in the interview guide in Attachment 3.

**Selection and Recruitment**

For prototype testing, it is necessary to include potential tourists and get their perspectives on the ideas. Again, we used the snowball method to gather informants, finding new potential tourists with a fresh perspective. The goal was to interview ten people for each idea. We conducted in-depth interviews to uncover the tourists perception of the activities. Find the data collection method for the testing & iterations phase in Table 10.

*Table 10: Prototype Testing Method*

| Experience provider | Type of data | Persona | Number of interviews & collection date |
|---|---|---|---|
| ***Tamsøya*** | Feedback on one-pager through in-depth interviews | Explorer | 10 interviews - Collected from March 22 to April 8. |
| ***Destinasjon 71° Nord*** | Feedback on one-pager through in-depth interviews | Thrill-seeker | 10 interviews - Collected from March 22 to April 8. |
| ***Aurora Glamping*** | Feedback on one-pager through in-depth interviews | Socializer | 10 interviews - Collected from March 22 to April 8. |

| | | | |
|---|---|---|---|
| ***Cape Fish Group*** | Feedback on one-pager through in-depth interviews | Achiever | 10 interviews - Collected from March 22 to April 8. |
| ***Tourism Start-up*** | Feedback on one-pager through in-depth interviews | Socializer | 10 interviews - Collected from March 22 to April 8. |

### 3.6.3 Taking Action – Testing and Iteration of the Prototypes

We developed the prototypes to be simple and effective. We wrote the one-pagers in a language similar to how one would design marketing material for the experience. We based the one-pagers on the MED canvas and the interest curve developed by the experience providers in the workshop. The one-pagers were then presented to potential tourists, noting feedback and analysing which ME-elements were lacking.

**Final Prototypes:**

Find the final prototypes presented to tourists in Figure 11. In Attachment 4, they are presented in full scale. We interviewed ten people for each prototype in a rapid and effective process. The test phase informants gave us their opinion on if or how they anticipated that they would return from the experience feeling the different emotions of the ME-elements. Although it is impossible to foresee whether the experience would be conceived as memorable, it gave valuable feedback for iterating on the prototypes.


*Figure 11: One-pagers*

To figure out which part of the experience needed iterations, we used the MED canvas as an analysing tool. We did the iterations by making minor adjustments to improve the memorability of the prototypes based on the feedback. Find the iterations presented in the Results chapter.

### 3.6.4 Evaluation of the Test & Iteration Phase

Prototyping experiences is challenging compared to prototyping manufactured goods. For a regular product, you can see if the solution solves a real problem for the customer. In experiences, while they solve challenges for the tourist, the main goal is to experience positive emotions. What you see on a one-pager is not always what you get, as there are many variables to what makes an experience memorable. That makes it complicated to achieve iterations that are well-reasoned.

The ME-elements were sometimes subtle and hard to communicate. That made it hard for us to analyse if the experiences match up to becoming a ME. However, we learned a lot from presenting the one-pagers to potential tourists, and this led to several iterations on the product with the assistance of gamification concepts and methods.

Using gamification methods to iterate was intuitive as the feedback we received implied which of the ME-elements needed improvement. Then, we could target those ME-elements specifically through iterations with gamification concepts and methods. For example, if we needed to improve companionship within the experience, the MED framework presented different methods for accomplishing this. As a result, the iterations were well-reasoned as they were based on proven concepts and methods from gamification, making the iterations more likely to benefit the memorability of the experience.

### 3.6.5 Reflection of the Test & Iteration Phase

While experiences are hard to prototype, the one-pagers gave us something tangible to present to the potential tourists. Finding points of the experience to iterate on was not difficult in this exercise, as we managed to find several touchpoints to revise for each prototype.

Testing if an experience will achieve ME in a virtual setting is close to impossible. The next step of this process would be to prototype the experience in an authentic setting, using the same method presented in this round of AR. To understand if the experience will be memorable, it is not enough to test it through virtual solutions. However, it is possible to gain many new insights by doing this exercise. We gained new knowledge on how to communicate the experiences and found indications on how the market perceived the new products by doing this exercise.

## 3.7 Meta-reflection

Meta-reflection occurs throughout the AR process and is an essential part of the AR method. There are two types of cycles, the core action cycle and the reflection cycle. These operate in parallel. The core action cycle is problem framing, action planning, taking action, and evaluating the process. Coghlan & Brannick (2005) explains that the reflection cycle is done within each round of AR, and further explains that those parallel cycles are a central part of knowledge development, as you reflect on the process as it is happening.

To achieve quality in this AR study, we continually reflected on the actions we carried out. The main goal of this study is to create innovation processes based on DT and gamification. We had to reflect on each action that we took during our AR to achieve this. As a result, we need to transform what we learned into knowledge and information that more people can access.

## 3.8 Quality in the Action Research

Quality is an essential part of the methodical approach of AR. In other methodical approaches, such as quantitative and qualitative, one often applies concepts such as reliability and validity. The quality of the research increases if the researcher reflects on the choices made throughout the entire process and documents the whole process in a transparent way to the audience for achieving repeatability (Melrose, 2001). During the entire AR, we have logged and noted every action made to ensure that other researchers can reproduce the same AR process. Melrose (2001) further explains that the researchers should clarify the study's participants' roles early. The five experience providers hold a massive amount of insight and knowledge about ME and the market while we, as researchers, are experts on innovation methods. We formed interdisciplinary teams, which led to multiple discussions throughout the workshop. This led to the participants growing on each other’s knowledge. Coghlan and Brannick (2005) explain that the meaning of the research is vital in the AR process's relevance. Everyone we interacted with within the ME industry clarified the importance of innovation in this field, especially when the industry needs to recover after the Covid-19 pandemic. The innovation experts we interacted with also clarified the importance of developing new and better innovation methods, and we are excited about the innovation method we have developed.

An essential part of the quality in an AR process is to repeat it since AR is a cyclic process (Melrose, 2001). Based on the time limit of this study, we did not have the amount of time to repeat the process, which is critical to consider. In this case, the repeatability in the form of careful planning, use of methods, defining the problem, continually reflecting and logging interviews and observations will be crucial to increase the quality of this research.

## 3.9 Ethical Considerations

Primarily, ethics is about the relation between humans and what we can or cannot do against each other. Ethics deals with different factors like principles, rules, and guidelines to assess which actions are right or wrong. The kind of rules and guidelines applies to research in the same way as any other activity in society (Johannessen et al., 2016). We connect the ethical considerations in this research to Melrose (2001) & Johannessen et al. (2016) descriptions of ethics by always telling the truth and only taking moral actions that will not go to the detriment of others, and conducting this research in cooperation with the experience tourism industry in Nordkapp. Critical ethical considerations in this research are the need to maintain and protect the integrity and rights of involved participants in this research process (Melrose, 2001). Silverman (2014) points out the importance of building mutual safety between us as researchers and the participants, where the participants also must be voluntary. As an assurance, we have continually been in contact with NSD to ensure their guidelines are being followed (NSD, 2021).

# 4. Results and Analysis

In this chapter, we will present the results from each phase with the tools we have developed.

## 4.1 Results and Analysis of Design Thinking Phase 1 – Empathise

As explained in Round One of AR in the methodical chapter, we sought to gather relevant insights to be used later in the process. Because we collected 75 new insights from the interviews, 27 expert insights and 48 tourist insights, respectively. We cannot explain every single insight in detail. Nevertheless, we can explain the insights that brought the study forward and helped develop the personas. We will use the same tools that the experience providers applied during the workshop to convey the results. We developed the PERMA map and adapted Bartle's player taxonomy for the sole purpose of providing an understanding of the collected insights. That is why we saw the value of using the PERMA map, as it was applied in a practical setting, to communicate the results of Phase 1. The insights are summarized within the PERMA map and explained in tables 11-15 for each persona. The data found in the tables were collected in Round One of AR through in-depth interviews with experts and tourists.

**The Socializer**

Just like the socializer found in computer games, the tourism socializer searches for destinations and experiences that fulfil their social needs. This happens in relation to PERMA elements, as explained in Table 11 and visualised in Figure 12.

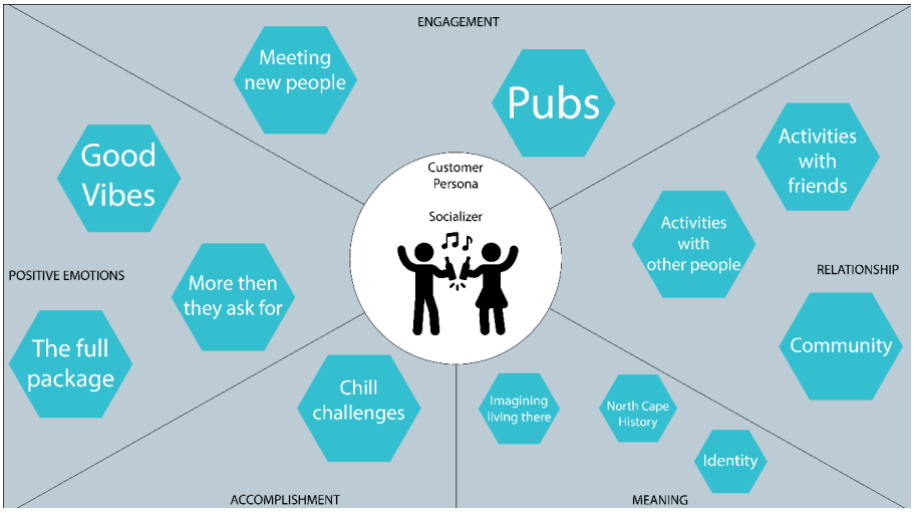



*Figure 12: PERMA-map Visualised - The Socializer*

*Table 11: Insights Grouped within PERMA - The Socializer*

| **The Socializer** | | | |
|---|---|---|---|
| **Positive emotions:** | | **Engagement:** | |
| ***The full package:*** | Due to logistical issues, group travellers often want to avoid planning. Therefore, the socializer is searching for someone to organize everything. This will reduce time spent on planning and increase time spent having fun. | ***Meeting new people:*** | The most important aspect for the socializer is to get to know other like-minded people. If they can achieve this, most activities will be considered fun and engaging. |
| ***More than they ask for:*** | If you present the socializer with surprises that they did not expect, they will want to pay more or leave a review on social media. | ***Pubs:*** | Something social to look forward to, like a good pub, helps the socializer stay focused and engaged during experiences. |
| ***Good vibes:*** | When booking accommodation or experiences, the socializer searches for places that ooze good vibes and well-being. | | |
| **Relationships:** | | **Meaning:** | |
| ***Activities with friends:*** | If the socializer travels with friends, the experiences they book needs to be social. If not, they do not see the point. | ***Imagine living there:*** | The socializer was fascinated by the people settled in Nordkapp wintertime, with the closed roads and inhospitable landscape. This spurred curiosity to meet and partake in experiences with the people that live there. |
| ***Activities with other people:*** | If the socializer is travelling alone, they just book experiences where they meet new people. | ***Nordkapp history:*** | The socializer found meaning in experiencing the culture and history of Nordkapp. |
| ***Community:*** | When comparing destinations or different tourism products, the socializer is searching for a community. They look to identify groups of people or places that identify with their values. | ***Identity:*** | The identity of a place seemed necessary for the socializers; if they perceived the destination as authentic and full of cool people, there was a higher chance they wanted to go there. |
| **Accomplishment** | | | |
| ***Chill challenges:*** | The socializer perceived the experiences available at Nordkapp as too extreme and hoped to find more relaxing and social challenges they could overcome. | | |

**The Explorer**

The explorer gets their drive from exploring new environments and a feeling of autonomy. Just like an explorer within a video game, the explorer in a tourism setting searches for hidden gems within the destination. The insights are explained in Table 12, and the PERMA map is visualised in Figure 13.

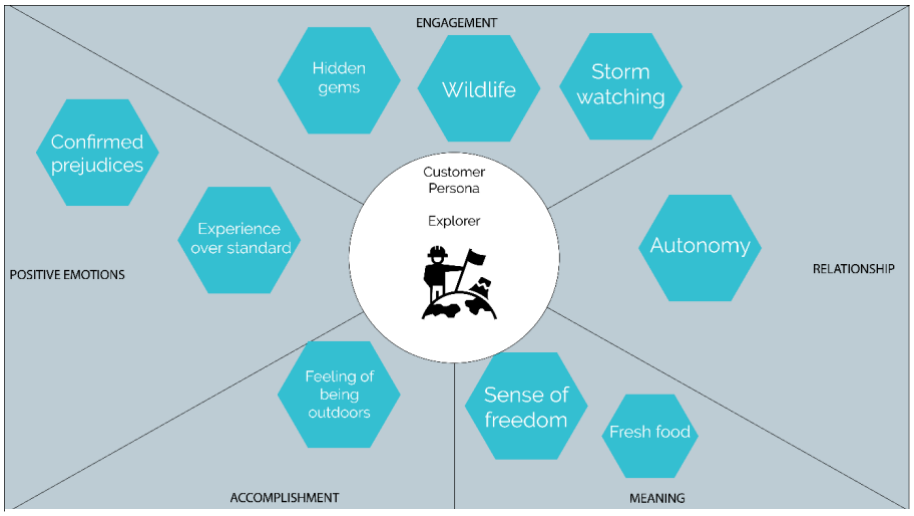



*Figure 13: PERMA-map Visualised - The Explorer*

*Table 12: Insights Grouped within PERMA - The Explorer*

| **The Explorer** | | | |
|---|---|---|---|
| **Positive emotions:** | | **Engagement:** | |
| ***Confirmed prejudices:*** | The explorer does everything they can to avoid a tourist trap. In the explorer's eyes, they had prejudices of Nordkapp as a tourist trap. These prejudices were, in their opinion, confirmed by the selection of available experiences online. | ***Hidden gems:*** | The explorer searches for the unique hidden gems during travels. Experiences that most people will not be able to do is considered attractive. |
| ***Experience over standard:*** | The experience of something novel is essential for the explorer, much more important than accommodation standard. | ***Wildlife:*** | Seeing rare wildlife is extremely important for many explorers, as this is unique and memorable to them. |
| | | ***Storm watching:*** | There is nothing as exciting as a good storm for the explorer. One tourist mentioned that a great storm gave an uniqe feeling of the raw nature. |
| **Relationships:** | | **Meaning:** | |
| ***Autonomy:*** | The explorers travel to explore places on their own terms. While travelling in groups happens, they usually travel for personal experiences. | ***Sense of freedom:*** | The explorer searches for a sense of freedom. This was especially important for those with mobile accommodation, such as camping tourists. |
| | | ***Fresh food:*** | The explorer loves quality commodities and searches for unique food experiences. |
| **Accomplishment:** | | | |
| ***Feeling of being outdoors:*** | The explorer loves the outdoors and feels accomplishment from simply being outside. | | |

**The Thrill-seeker:**

Like a computer game killer, the thrill-seeker searches for new, exciting challenges and friendly competition. Sports and physical activity are considered important factors when the thrill-seeker decides where to travel. The collected insight regarding this persona is explained in Table 13 and visualised in Figure 14.

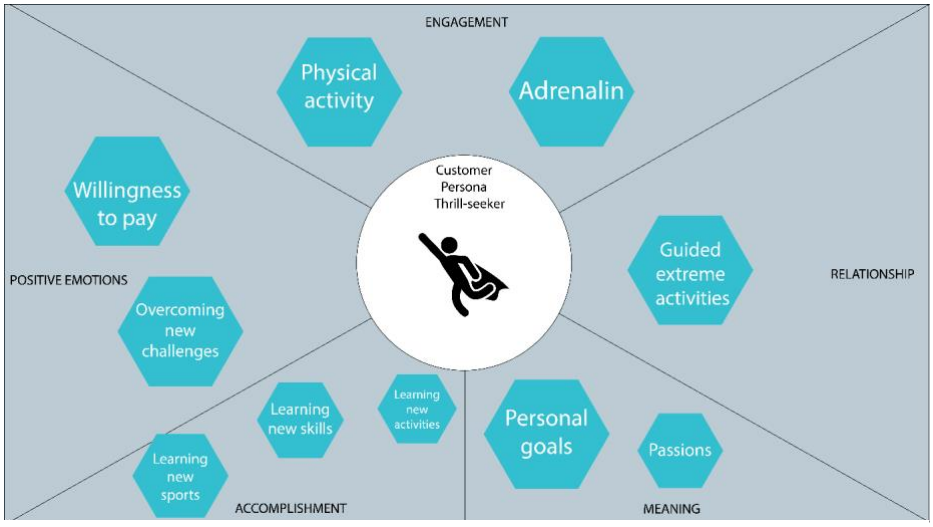



*Figure 14: PERMA-map Visualised – The Thrill-seeker*

*Table 13:Insights Grouped within PERMA - The Thrill-seeker*

| **The Thrill-seeker** | | | |
|---|---|---|---|
| **Positive emotions:** | | **Engagement:** | |
| ***Willingness to pay:*** | The thrill-seeker willingly spends money to achieve new thrills. | ***Physical activity:*** | Physical activity during the travels is a given for the thrill-seeker. |
| ***Overcoming new challenges:*** | Overcoming new challenges is vital for the thrill-seeker to experience positive emotions. | ***Adrenalin:*** | The thrill-seeker gets engaged by experiencing adrenalin. |
| **Relationships:** | | **Meaning:** | |
| ***Guided extreme activities:*** | For doing extreme activities, the thrill-seeker often wants an experienced guide to accompany them. | ***Personal goals:*** | The thrill-seeker travels because of personal goals, which is often a sport. |
| | | ***Passions:*** | The thrill-seeker travels because of passions, which could be climbing a specific mountain |
| **Accomplishment:** | | | |
| ***Learning new skills:*** | Learning new skills gives the thrill-seeker a feeling of accomplishment | Learning new activities: | Learning new activities gives the thrill-seeker a feeling of accomplishment. |
| ***Learning new sports:*** | Learning new sports gives the thrill-seeker a feeling of accomplishment. | | |

**The Achiever**

Just like the player in Bartle's taxonomy, the achiever focuses on checking experiences off their bucket list. Excellent photos and sharing achievements with the world is vital for the achiever when selecting a destination. This persona is explained through insights collected in Table 14 and the PERMA map for the achiever is presented in Figure 15.

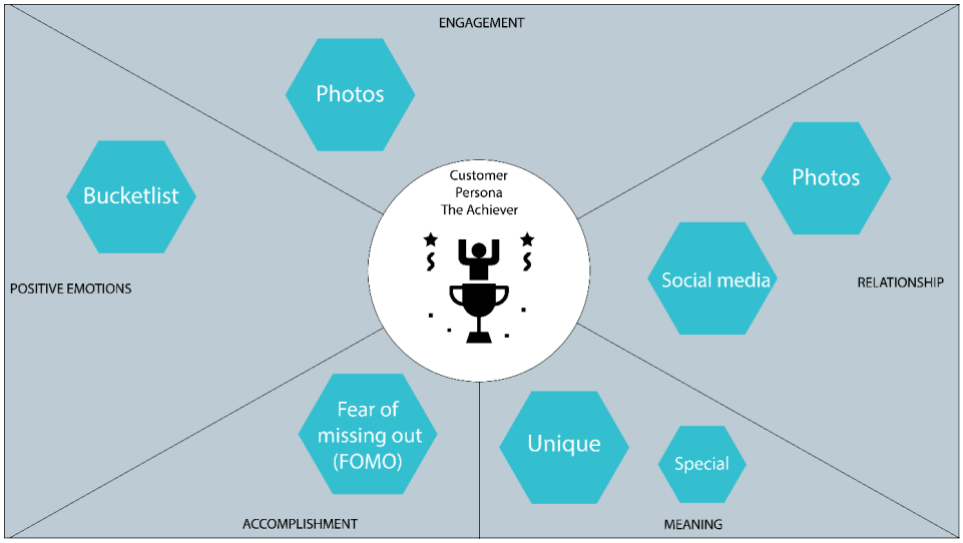



*Figure 15: PERMA-map Visualised - The Achiever*

*Table 14: Insights Grouped within PERMA - The Achiever*

| **The Achiever** | | | |
|---|---|---|---|
| **Positive emotions:** | | **Engagement:** | |
| ***Bucket list:*** | The achiever gets positive emotions from checking off their bucket list. In this context, the achievers we talked to had the ambition to check Nordkapp of theirs. | ***Photos:*** | The achiever gets engaged when they can take excellent photos of their new experiences. |
| | | ***Unique:*** | The achiever gets engaged when experiencing something unique and special. Accommodation and experiences are both necessary in this aspect. |
| | | ***Special:*** | |
| **Relationships:** | | **Meaning:** | |
| ***Prestige:*** | Prestige is to show your friends that you travel. The achiever aspired to be perceived as an experienced traveller by other people. | ***Authenticity:*** | Authenticity is essential for the achiever to experience meaning. It was not enough to feel luxury, as finding something real and authentic was equally important. |
| ***Social media:*** | The photos are important because the achiever looks to share whatever they are doing on their vacation on social media. | | |
| **Accomplishment:** | | | |
| ***Fear of missing out (FOMO):*** | The achiever feels accomplishment by avoiding FOMO. As a tourist, the achiever has planned out all the things they want to achieve and the sights they want to see during their vacation. It is important to them to do all the things they had planned. If not, they feel FOMO or frustration. | | |

**Participant Reflection - Empathise Phase**

The experience providers' felt these insights were valuable new information and introduced them to a new way of thinking. They also agreed it was valuable that we, as third parties, collected these insights. The participant from Cape Fish Group said it was often challenging to indulge in a conversation to identify insights when taking on the role of the experience provider.

## 4.2 Results and Analysis of Design Thinking Phase 2 – Define

In this chapter, we will present and analyze the actions we have done in Phase 2. The goal of this phase was to communicate the results of Phase 1 to the experience providers by visualising them and use these results to define design challenges within the experience design workshop. In Phase 1, we presented how we as researchers worked with the developed empathizing tools. This phase will present how the five experience providers used the tools in a workshop setting to define design challenges.

**Design Challenges**

The role-play exercise worked as an excellent tool for defining design challenges, as it was necessary to achieve an empathetic mindset to succeed. The participants managed to find 14 different design challenges to continue working with, presented in Table 15.

*Table 15: Insight and Persona Related to Design Challenges*

| Design challenge | Persona |
|---|---|
| How can we further integrate the tourist into the local community? | The socializer |
| How can we get more businesses to visit Nordkapp? | The socializer |
| Lack of experiences within the city of Honningsvåg | The socializer |
| Lack of social events | The socializer |
| Alternative tour packages | The socializer |
| No courses to attend | The thrill-seeker |
| Activities close to nature | The thrill-seeker |
| Low threshold excitement | The thrill-seeker |
| Innovate the tourism information | The achiever |
| How to get people to post on Instagram | The achiever |
| Lack of experiences to boast about | The achiever |
| How to sell the ocean | The explorer |
| Get the tourists to stay longer | The explorer |
| No extreme weather activities | The explorer |

Analyzing the different design challenges, we could identify the connection between the insights and the suggested challenges. We would therefore argue that the communicated insights were of great assistance in defining design challenges. For example, the design challenge “no extreme weather activities” derived directly from a collected insight called “Storm Watching”. Here an earlier arctic tourist told us his memory. When he was encapsulated in extreme weather when travelling through northern Norway, he thought it was fantastic to watch storms in a comfortable setting. While it was not evident in all the cases, most of the produced output from this phase was directly influenced by Phase 1. This analysis made us believe that the tools we developed assisted the workshop participants in producing output. Bartle’s taxonomy was quickly and easily understood, and the role-play exercise showed us that the participants could put themselves in the persona's shoes. The presented design challenges were in all the cases addressed to a specific persona.

The PERMA map was an essential element for the participants to familiarize themselves with the insights collected in relation to the framework's elements. The participants connected the dots between insights, the Personas and PERMA. After this exercise, the experience providers had a deeper understanding of the findings from Phase 1. As an introduction to the process, this worked as an important tool for communicating insights within the experience context, letting the experience providers work with the insights and “learning by doing”. Seeing the participants work with the PERMA map furthered our understanding of the insights and personas presented in the workshop. Some participants made connections between PERMA elements and insights of which we were previously unaware.

**Participant Reflection - Define Phase**

The **Cape Fish** participant told us that seeing the Personas resulted in him categorizing himself and the people he knew. He expressed that the personas managed to cover many different types of travellers. This way of working was common for them in the fishing industry, but they had never been working with it in the experience design context. It provided them with a new mindset to systematically narrow down the destination’s more significant problems to more minor design challenges.

The **Destinasjon 71° Nord** participant expressed to us afterwards that the personas were relatable to him. They had similarities to the segments that his company already worked with, and he argued that it is essential to be conscious that all types of personas overlap. For example, a thrill-seeker by day often turns to a socializer in the evening. He stated that when

most people think about challenges, it quickly turns into complaining. To combat this, you can clearly define the problem, and the mind searches for solutions.

The **Tamsøya** participant found it easy to define design challenges for the destination of Nordkapp as a whole. However, it was difficult to identify these challenges for Tamsøya's customers. While it was clear that Tamsøya should focus on the explorer and the socializer, she struggled when defining design challenges for her own guests.

The **Aurora Glamping** participant mentioned that he never saw things as problems. He just saw situations, and then he would do his best to fix that situation. He thought it was good first to break the problems down to find solutions.

The **Tourism Start-up** participant mentioned that it is easy to focus on the challenges that are not solvable. For example, logistics in the wintertime will always be a problem in the region. The buses do not correspond with flights, and the roads are often closed, and she thought that this should not be where you put your focus.

All the participants agreed that defining these design challenges helped them achieve a more empathetic mindset by using the tools we presented. Our observations from this process were that the participants were sceptical about spending this much time tweaking and defining challenges. However, in retrospect, they all agreed that it was a valuable way to approach experience design.

## 4.3 Results and Analysis of Design Thinking Phase 3 – Ideation & Prototyping

We conducted the Ideation & Prototype Phase through a creative workshop. This workshop generated several new ideas and prototypes that could solve some of the defined tourism problems in Nordkapp. The ideation & prototype workshop contributed with several innovative and creative ideas and prototypes made by the participant assisted by the tools we have developed.

The ideation resulted in a total of one hundred and twenty-seven different creative ideas, as seen in Figure 16. We divided them into the relevant segment of Bartle's Taxonomy according to the related design challenge. This result gave a good foundation before moving on to the screening.

*Figure 16: Output from the Brainstorming Session*

The screening session of the workshop resulted in one idea to be further developed and prototyped for each participant. They each chose three different ideas, which resulted in fifteen creative ideas that solved a specific challenge. We gave each participant ten minutes to develop each idea further in the MED canvas. They used the MED canvas equal for each of their three chosen ideas. They chose the idea that demonstrated the most significant potential for introducing gamification elements such as fellowship, flow, accomplishment, higher purpose, and positive emotions. The screening resulted in a total of five ideas, one idea for each participant. Table 16 shows the ideas and the experience provider that came up with each idea.

*Table 16: The Experience Providers and Their Selected Ideas.*

| Provider | Idea: |
|---|---|
| ***Destinasjon 71° Nord*** | Climb the Net at Nordkapp Plateau |
| ***Tamsøya*** | Cabin to Cabin |
| ***Cape Fish Group*** | Nordkapp Activity Park |
| ***Aurora Glamping*** | Kokelv Team Building |
| ***Tourism Start-up*** | Kven Museum |

The participants prototyped the ideas in the form of an interest curve. The interest curve exercise resulted in five different prototypes visualised in a curve showing hooks, progressing levels and the climax. As shown in Figure 9, the interest curve worked as an excellent tool to rapidly prototype the ideas and demonstrate how the experience is staged. For an example of a prototype developed by a participant, see Figure 17. This activity was helpful to us as researchers because we got the necessary understanding of the idea. From this, we could quickly develop one-pagers. Find the one-pagers in Attachment 4. The one-pagers were the main prototypes we used when interacting with tourists in this study's Test & Iteration Phase.

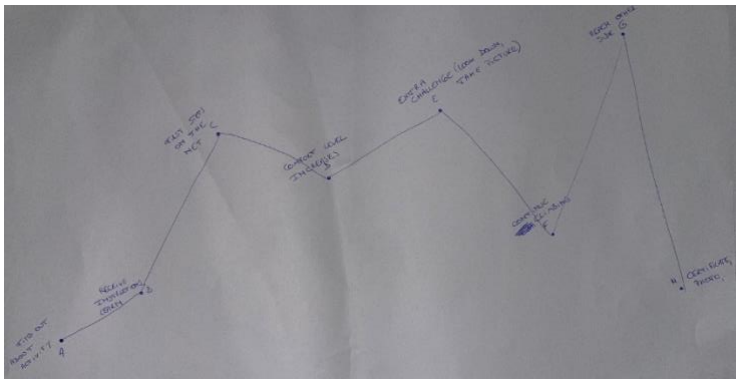


*Figure 17: Interest curve of 71°Nord*

**Participant Reflection – Ideation & Prototype Phase**

Every participant explained that they saw the tools we introduced them to as great tools to develop ME in the tourism industry. They were also clear that some of the tools could have been explained better during our presentation, making it easier to understand the purpose and usage of the tools.

Several experience providers described both the MED canvas and interest curve as valuable and creative tools that they will bring with them further when developing experiences in their businesses. Summarized, the participants were satisfied with the workshops, and they gave a lot of relevant feedback and considerations to improve the process.

## 4.4 Results and Analysis of Design Thinking Phase 4 – Test & Iteration

In this phase, the different concepts are tested and iterated in line with DT, as seen in Table 16. As discussed in the methodical chapter, we developed one-pagers to test the ideas. Find these in Attachment 4. To test if the ideas can become a ME, we discussed the ideas with potential tourists. To illustrate the results, we present the feedback received as iterations to the prototypes and visualise this within the MED canvas. We did one round of interviews for each experience idea where we identified weaknesses regarding the five ME-elements. This resulted in one or more iterations for each of the ME-elements. We applied gamification

methods from the MED framework to present well-reasoned iterations based on the feedback we received. Find the gamification methods used to iterate explained in Table 5.

**Idea 1: Climbing the Net of Nordkapp - Destinasjon 71° Nord:**

All of the test subjects found this experience exciting, and the resemblance to the finale of the TV show 71° Nord was a factor that the subjects found attractive. The informants perceived the experience as something that could attract a significant number of people. One person characterized it as possibly being "the new Trolltunga", emphasising the commercial potential of this experience.

**MED Canvas Iteration – Climbing the Net of Nordkapp**

**Broaden and Build:** Some people who showed interest in participating in this experience felt it needed to be part of a more extensive package for them to book. One person suggested that this concept could include other challenges from the TV show 71° Nord. Our analysis is that we can relate this feedback to the gamification concept of *relaxation and tension*. To iterate, we suggest using the gamification method *boss fight*. We believe the experience could provide more minor challenges previous to climbing the net, making the challenge even more rewarding.

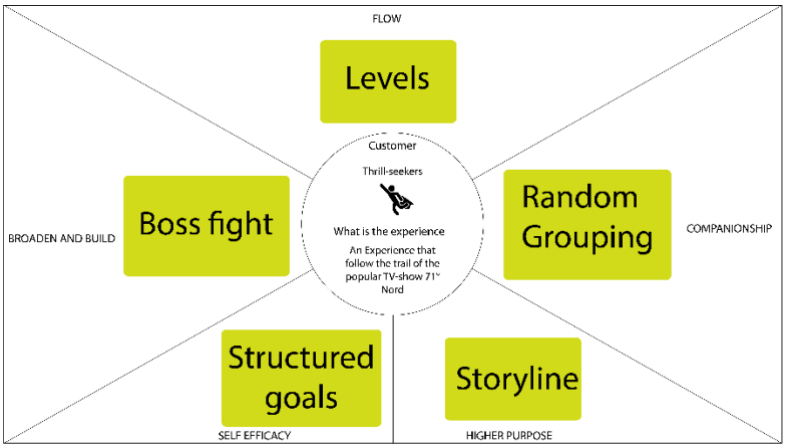



*Figure 18: MED canvas Destinasjon 71° Nord*

**Flow:** Many of the test subjects were reserved and thought the experience was frightening. Our analysis of this is that we can relate this feedback to the gamification concept *skill/challenge balance*. To make the experience available to more people, we suggest a smaller net side-by-side. Applying the gamification method of *levels* to increase the experience's difficulty gradually can be beneficial.

**Companionship:** As mentioned above, we recognized through testing that this is an experience for the bravest among us. For this reason, we imagine that many groups of travellers will have to split up as this is not for everyone. Our analysis is that we can relate this feedback to the gamification concept of *support*. Applying the gamification method of

*random grouping* to create groups of strangers will make the experience more accessible. It can also improve companionship, giving the opportunity of meeting like-minded people.

**Higher Purpose:** As noted in the feedback, people love the TV show 71° Nord. Many of the test subjects showed a passion for watching the TV show. Our analysis is that for attracting this group of people, we suggest improving the story of the experience by using a storyline resembling the TV show's final. More specifically, applying the gamification method of a *scripted story* can improve the sense of participating within something with a higher purpose.

**Self-Efficacy:** We received feedback from older interview subjects that they would love to climb the net if they were still young. Our analysis suggests that we can apply the gamification concept of *experiencing mastery* and the method of *structured goals*. Splitting the one great challenge into smaller, more achievable goals can motivate participants to accomplish the feat of climbing the net.

To summarize, the test results and iteration for this experience suggest making the experience of climbing the net a part of a more extensive experience. Using a scripted story resembling the finale of the TV show 71° Nord, structured goals and boss fights can create positive emotions and a sense of mastery. Implementing random grouping can improve companionship.

### Idea 2: Cabin to Cabin - Tamsøya

The feedback gathered from the one-pagers about the Tamsøya experience was all-around positive. The primary wish of the test subjects was to escape the stress of everyday life and recharge in the presence of nature. Exploring an island by yourself was seen as an attractive value proposition by the tourists.

**MED Canvas Iteration – Cabin to Cabin at Tamsøya**

**Broaden and Build:** The test subjects loved the possibility of exploring the island by themselves. Our analysis is to iterate based on the gamification concept of combining *familiarity and novelty* when staging the experience, applying the concept of *discovery*.


*Figure 19: MED canvas Tamsøya*

Points of interest can be placed or highlighted along the paths between the cabins to achieve this. These points of interest will also benefit the gamification concept of *surprise*, applying the method *easter eggs*.

**Flow:** The feedback mentions a concern from some subjects that after the novelty of being on an island wore off, the experience would not differentiate itself from other weekend retreats. Our analysis of this concerns ensuring that the visits are engaging by using the gamification concept of *clear goals.* More specifically, applying the gamification method *access items.* The iteration we suggest is to make the participants solve a challenge to access the next cabin on their journey.

**Higher Purpose:** Some test subjects noted that the sense of freedom they achieve by wandering around an island by themselves would be the main reason for booking this experience. We suggest building on this by applying the gamification concept of *autonomy*, applying *customization* to increase the sense of freedom. The people participating in the experience should be able to choose how they want to discover the island. In practice, this can mean that they can get the opportunity to participate in voluntary challenges when they make their journey across the island.

**Companionship:** The feedback suggests that people saw a trip to Tamsøya as an opportunity to bond with their friends or significant other. Our analysis of this is to iterate based on the gamification concept of *support* and method of *gifting*. Our suggestion to make this iteration is that Tamsøua builds services where the participants can order gifts for their significant others, e.g. a fancy dinner or slice of cake, delivered to the cabin where the couple or group of friends are staying for the night.

**Self-Efficacy:** The feedback we received suggested that people wanted to come to Tamsøya for a relaxing experience. Someone suggested that organized activities should be kept at a minimum to enjoy the island in peace and avoid frustration. However, some challenges need conquering when travelling from cabin to cabin at Tamsøya, for example, lighting the fireplace in the cabin or cooking food outside in nature. Our analysis of this is that we could iterate based on the gamification concept of *experiencing mastery*, applying the method of *mentorship.* A mentor can assist the experience participants in avoiding frustration when taking on these built-in challenges. The host or mentor could give feedback along the way, guiding the visitors through their experience at Tamsøya.

To summarize, we suggest building upon the feeling of discovery, letting participants solve small challenges along the way when finding easter eggs and other surprises. We suggest letting the guests customize their experience by choosing which quests they want to participate in, using gifts to stimulate companionship and applying mentorship to improve the chances of people feeling self-efficacy.

### Idea 3: Nordkapp Activity Park – Cape Fish Group

The feedback we got on the activity park for kids was that parents needed to know that their kids feel safe at all times. This would open up for the parents not to worry. Designing the experiences to let the kids run free safely would be a big selling point. The parents expressed a wish to break from the daily routine, and they wanted their kids both to learn something new and make new friends.

### MED Canvas Iteration – Nordkapp Activity Park

**Broaden and Build:** The most important factor for the parents being interested in sending their kids to the activity park was to know that it was safe. Our analysis suggests the gamification concept of aesthetics to succeed with this iteration. If the park creates a "safe" environment, similar to the gamification method of *fantasy-world*, the kids can discover the world by themselves, creating positive emotions.

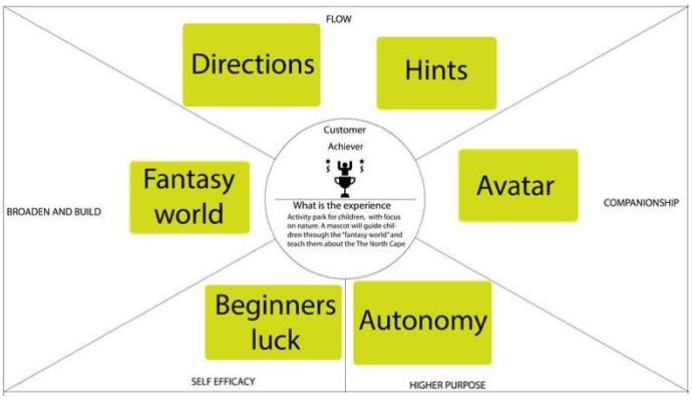


*Figure 20: MED canvas Cape Fish Group*

**Flow:** The feedback we received suggested that activities should be relatable and contain characters familiar to kids. To increase engagement, we suggest the use of the gamification concept *guidance*. Someone relatable and recognizable for the kids visiting can be the activity park guide, providing the kids with the gamification methods, *hints* and *directions* when exploring their fantasy world.

**Companionship:** The parents told us that it was great if kids from different families got the opportunity to play together. Our iteration uses the gamification concept of *impact*, making it easier for shy kids to be social. We suggest applying the gamification method *avatar* so that the kids lose their self-consciousness and feel free to be themselves. An avatar in this setting could be putting on a costume when entering the park.

**Higher Purpose:** We received feedback that kids get more absorbed in an activity when contributing to something meaningful such as doing something good for the environment. Our analysis suggests iterating on the experience based on the gamification concept of *impact.* More specifically, we suggest an *epic scale* activity that happens every day, gathering all the kids in the park to solve a meaningful problem.

**Self-Efficacy:** If the kids experienced a sense of self-efficacy, they felt good about their vacation. Our analysis implicates that some activities could use the gamification concept of *experiencing mastery* through the method of *beginners' luck.* This will give an advantage to kids struggling and offer a greater chance of succeeding at the activity, which in turn will build a stronger sense of self-efficacy.

In summary, the experience should build further on being an experience park just for kids, improving companionship through letting the kids become avatars when they roam around the park by themselves, letting the kids have a real impact and experiencing mastery through using beginners luck.

### Idea 4: Team Building Kokelv - Aurora Glamping

The feedback we got on the team building exercise was to customize the concept even more and that the "glamping" accommodation style did not seem to correlate with the team building concept. The feedback emphasised that the concept should be customized for luxury in the wilderness when selling the glamping concept. If the goal is team building, the holistic concept should be built with just team building in mind, as the two do not go hand in hand.

### MED Canvas Iteration – Team Building Kokelv

**Broaden and Build:** Because we received feedback that the branding should be in style with the expected activity, our analysis suggests applying the gamification concept *aesthetics*. Specifically, using the gamification concept of using an *environment* that matches the experience, cultivating aesthetics to become team building specific rather than glamping specific. The team building experience can use the surrounding


*Figure 21: MED canvas Aurora Glamping*

environments to create a holistic experience improving the touchpoints where team building happens.

**Flow:** We got feedback that all exercises in team building should have a clear purpose and goal as to how the teams increase their cooperation. Our iteration uses the gamification concept of *clear goals* for what the team should accomplish together during the experience. This challenge is solvable through the gamification method of handing out a *quest* or *mission*.

**Companionship:** We got some feedback that the experiences needed to be unique to become attractive in a team building setting. While throwing axes and shooting bow and arrow was considered fun by the participants, the participants doubted if it would benefit team building. Our analysis suggests using the gamification concept of *acknowledgement*. The team building participants can become the *heroes of the story,* a standard gamification method. The owner of Aurora Glamping has invested a lot into his business to revitalize and create jobs for the village of Kokelv, which suffers from population decline. We suggest building on this, letting teams come together to save the tiny village of Kokelv as the story's heroes, leaving a tangible impact on the community.

**Higher Purpose:** One of the interview subjects stated that he was not a big fan of team building exercises because it was always forced upon him by his superiors at work. Our analysis suggests applying the gamification concept of *autonomy,* letting individuals *customize* their own experience and select between different quests.

**Self-Efficacy:** One interview subject mentioned that businesses invest in team building because it results in satisfied employees. Our analysis shows that games often do this by using the concept of *experiencing mastery* through the gamification method *enlightenment moments.* Examples of this could be if you suddenly realize that you are an important team member or suddenly appreciate your co-workers more than you did before the experience. When designing for these *enlightenment moments,* one needs to create a non-obvious lesson revealed over time through the assistance of hints or small parts of information.

Summarized, we suggest that Aurora Glamping relates the environment and holistic concept to the experiences they offer, using clear goals to achieve flow. Autonomy and acknowledgement should be two central aspects that the team building exercise should focus on, letting the teams experience mastery through enlightenment moments.

**Idea 5: Kven Museum – Tourism Start-up**

Some test subjects had little to no knowledge about the Kven people and no interest in learning more about them. Others were familiar to some extent and curious to learn more. The subjects that showed interest enjoyed the idea of a museum, which focuses on the lifestyles of the Kven people. Some subjects expressed a wish for activities that would have been typical of the Kven people, and some subjects brought up engagement as a potential pitfall for such a museum. The best museum visits for subjects were the ones that covered a topic in which they were passionate. They also enjoyed museums if they took the tour with people they enjoyed being around or if the tour guide or overall experience was unique and memorable.

**MED Canvas Iteration – Kven Museum**


*Figure 22: MED canvas Kven Museum*

**Broaden and Build:** Some feedback mentioned that a trip to the museum often is a dull affair. Our analysis proposes to use the gamification concept of varying *relaxation and tension*. The museum can benefit by creating several challenges during the tour that is typical of Kven people. Then there could be a final challenge by using the gamification method *boss fight.* This could, for example, be a quiz that asks questions from the previous activities.

**Flow:** As we received feedback that a museum should be engaging, we suggest using the gamification concept with *clear goals*, applying the method of a *quest.* This can serve as overarching goals within the tour.

**Companionship:** We received feedback that some people were uninterested in this experience, while others were passionate about it. We suggest using the gamification concept of *acknowledgement* to improve companionship, making passionate individuals *ambassadors.* Rewarding those who put in the extra effort towards the experience as ambassadors can improve tourists relations and retention, producing a loyal following.

**Higher Purpose:** We received feedback that guides can either be good or bad in a museum experience. If the individual lost the feeling of *autonomy*, the guides contributed to making the experience worse. To address this feedback, we suggest implementing the gamification

method *open-world design*. There can be implemented «free-roam» periods during tours, where visitors can roam the area independently.

**Self-Efficacy:** To let the guides contribute more to a ME, we suggest using the gamification concept of *experiencing mastery*, letting the guide become a *mentor*. The main goal of this mentor role will be to help the experience participants complete quests and prepare the participants for the final quiz.

To summarize, we suggest actively attempting to increase participation within the activity through available quests and a final boss fight. The use of tour guides as autonomous mentors in an open-world design will help the museum on its way to becoming a ME, according to the feedback we received.

## 4.5 An Overall Analysis of the Process

The insights collected from industry experts and tourists during this process helped us to: A - develop several experience prototypes based on customer needs, challenges, and potential upcoming trends in the market. B - develop an innovation process based on DT methodology and gamification elements suited for the experience industry. While we will have to wait and see if the iterated prototypes will turn into real and ME, we could tell that the workshop participants learned a lot. The user-centric methods of DT helped assist the experience developers in understanding their customer, and gamification provided a fresh outlook on how to design a ME.

# 5. Discussion and Reflection

This chapter will systematically go through each subproblem statement, discussing how the delivered process compares to the theoretical framework. We will reflect on how we conducted the process and what new knowledge the innovation output of the process brings to gamification and DT in this specific context. Furthermore, we will reflect on the implications this process gives for developing innovative practice for the experience providers in Nordkapp.

## 5.1 Discussion and Reflection – Subproblem Statement A

*How can Design Thinking and gamification be used in an innovation process?*

To answer this, we will discuss how we managed to implement the core elements of DT when using gamification to develop experiences. Further, we will discuss how the tools we developed compare to more traditional DT tools and mindsets. The purpose of the discussion is to review the process as a whole, answering subproblem statement A.

One core element in DT is the concept of being *user-focused* (Carlgren, Rauth, et al., 2016). This central principle of DT worked well as a guiding star for the whole process and provided us with unique insights into what people look for in experiences. Nicholson (2012) refers to gamification that does not benefit the customer as "meaningless gamification". Therefore, when implementing gamification concepts and methods, it is even more important to be user-focused. Our process achieved this through developing new tools.

When working with DT within ME, one of the challenges we faced was defining design challenges, represented here by the core element of DT called *problem framing* (Carlgren, Rauth, et al., 2016). It is unnatural to think that something as related to positive psychology as a tourism experience solves a problem. In reality, most of the products in the EE do precisely that. This mindset was challenging to take on for the experience providers in the experience design workshop. However, all of the participants agreed that this mindset was beneficial when working with new ideas for tourism experiences, making it much easier to come up with ideas.

The following core element of DT we will discuss is *visualisation* (Carlgren, Rauth, et al., 2016). Visualisation serves the purpose of concretizing abstract ideas. We managed to implement this core element by developing different tools such as the PERMA map and the MED canvas. However, looking back on the process, our tools could be used more visually, as the experience providers wrote down their thoughts within the tools instead of drawing them. To further develop these tools, we suggest finding ways to encourage visualisation within them. For example, instead of writing how insights relate to the PERMA map or ideas relate to the MED canvas, it can be answered through drawings.

*Experimentation* is another core concept of DT (Carlgren, Rauth, et al., 2016). We applied this in the development of the innovation process. Within the test phase, we experimented with the prototypes that the experience providers developed. The main downside with this was that the experience providers did not participate in this crucial part of DT. We, as researchers, did all the testing and experimentation in Phase 4 of AR. However, we hope that the experience providers continue testing and experimenting with their ideas after launch.

*Diversity* was considered an essential element within this process (Carlgren, Rauth, et al., 2016). The team of experience providers had varied experience and skills, which led to meaningful discussions within the workshop. Nevertheless, it must be said that all the workshop participants already worked within the tourism industry and had an already established perspective of what a tourism experience should include. If we were to re-run the process, we would try to implement more people who work in different sectors or backgrounds to implement new and fresh perspectives on ME.

We found inspiration for the tools we developed by both DT and the theoretical review done by Egger and Bulencea (2015) when using gamification to develop ME. The first new tool we developed was the PERMA map, inspired by the DT tool *empathy map.* This is applied in DT to overview what users think and feel, see and hear, say and do, as well as pains and gains. The PERMA map applies itself in the same manner, except that the focus is on comprehending how users experience PERMA.

Another standard tool in DT is the *user persona* (Carlgren, Rauth, et al., 2016). We developed a new approach here by adapting *Bartle's player taxonomy* to a tourism context. Just like the aim of a user persona in DT, the player taxonomy served to communicate insights. This tool

also helped the participants in establishing a deep understanding of the user. The benefit of using a predetermined persona framework like this is that it makes it easier to develop the personas. The risk is ending up with a framework that does not work in the desired setting. Bartle's taxonomy is a player taxonomy criticized in the game design world. This is because the taxonomy is not defining all the individual types of gamers and bases itself on stereotypes. Even Bartle himself stated that this model is incomplete for anything other than open-world games, a type of game where the player can roam freely within the world (Van Dam & Bakkes, 2019). However, when we used it in a tourism setting, it provided a vital tool for two reasons. First, we managed to categorize most people we interacted with within the persona framework, as said by one of the participants in the workshop. Secondly, it provided a much-needed structure for the innovation process.

A common way to develop ideas in DT is to brainstorm. As noted in the methodical chapter, we did this by using one minute to solve each problem. The main issue with this method of working within our process was that we ended up with 127 ideas. This made it essential to find a way to screen the ideas, choosing the ideas which had the most significant potential to become a ME. Here the MED canvas was applied. While communicating the ME-elements was straightforward, gamification concepts and methods were harder to facilitate. We believe that the MED framework with the newly developed canvas makes it easier to design experiences incorporating gamification. However, there is a need for more devoted time during workshops to fulfil the potential. Educating the users in the different ME-elements, gamification concepts and methods before using the canvas is essential because the MED canvas will feel more intuitive and more in line with how we intended the tool to be used. In DT, one should spend minimal time and resources to develop prototypes (Brown 2008). Therefore we argue that this tool needs a rework or should just be utilized by experience providers already familiar with gamification as described by the MED framework.

**Own Reflection and Learning**

In designing ME, we will emphasize the importance of understanding how users experience positive emotions. As discussed in the theoretical chapter, negative experiences are forgotten quickly, and experiences that brought forward positive emotions stand the test of time through memorability (Kim et al., 2012). The elements of PERMA requires different approaches when attempting to understand how individuals experience these emotions. We learned during our research that some of the elements were not achievable without the presence of others. In

other words, the elements of positive psychology blend and impact each other and vary in importance for different individuals. As our persona framework exemplifies, the thrill-seeker searches for a feeling of self-efficacy, impacting how the other elements interact. If there is no challenge, the thrill-seeker is not engaged and does not find any deeper meaning with the experience. This will impact interactions with other people. For the socializer, relations were the most critical factor. They do not see the point of experiencing something alone, and the rest of the elements suffer if they do not have positive relations. The explorer had a big focus on deeper meaning and the feeling of autonomy. If they had that feeling, the rest of the elements of PERMA would increase. The achiever was more complex to analyse, and we were unsure which of the elements was important to focus on for the experience providers. However, it seemed to us that communicating their experiences to friends and family was essential and, therefore, we perceive relations as the driving force of their travels. It is important to recognize that a persona framework is just that, a framework. It is essential to keep the whole picture in mind and design holistic experiences that also work in the real world and not just for an imagined persona.

While we struggled to use the MED canvas to its full potential in the workshop, it provided an excellent tool to iterate based on the feedback we got on the prototypes in Phase 4 of DT. It applies methods that can increase memorability, and we managed to improve the original prototypes. If our iterations are implemented, we argue that they will lead to a higher chance for tourists to achieve ME. Therefore, we will mention that the MED canvas is a helpful tool in the Test & Iterations Phase and not just a screening tool.

Gamification is also still a vague term when it comes to tourism experiences. When analysing the gamification methods of the MED framework, we were able to find existing local examples for all 41 methods. While this made it easier to explain the different methods to the experience providers, it made us consider there already is an ice bar in Nordkapp that has constructed a wonderful, gamified fantasy world. This bar likely did not design the experience with gamification in mind but applies several gamification methods in their concept. Therefore, we would argue that gamification has always existed in tourism in general and at Nordkapp. We can do the vital work as scholars to assist in putting this previous tacit knowledge into innovation processes.

To summarize, the main challenge we faced during our workshop was the combination of a DUI and STI innovation process (Jensen et al., 2007), merging the two concepts of DT and gamification in experience design. Bringing in the positive psychology of PERMA was beneficial but complicated. While the MED canvas served as an excellent tool, we struggled to reach the full potential of the motivational methodology when conducting the workshop due to the complexity of the theoretical framework. However, we believe that through a trial-and-error approach, we can solve these issues. To answer the research question, we believe that gamification is possible to implement within DT through our methods. However, more research must be done to provide a definitive conclusion as to what is the best practice for doing so.

## 5.2 Discussion and Reflection – Subproblem Statement B

*How can the combination design thinking and gamification contribute to innovation output when designing memorable experiences?*

To discuss the innovation output produced by the process, we will discuss and subjectively evaluate the produced output of ideas in relation to the scale of ME developed by (Kim et al., 2012). As mentioned in the theoretical chapter, this scale is tested and validated and therefore, it is an excellent measurement to define if tourists will perceive the experience as memorable. We will say that the authors applied this scale in a quantitative study with standardized questions. However, for our specific context, we figured it would be an excellent asset to this thesis. We can use the dimensions in the scale to qualitatively discuss whether the produced output from the experience design workshop can become a ME and hence enable us to answer subproblem statement *B.*

The first prototype we will discuss is Climbing the Net of Nordkapp by Destinasjon 71 Nord. Concerning *hedonism,* it is an exciting experience that will bring forward positive emotions for many people. It provides a sense of *refreshment* in how one can forget the surrounding world. Nevertheless, it is hardly an experience that anyone would consider relaxing. It provides zero to low *interaction with locals* as its location is within the tourist hub of Nordkapp. For some people, it will have *meaning* as it allows experiencing what it is like to be in the final of the TV show 71 Nord. We are unsure if a customer learns new *knowledge,* as

the tourist will learn to climb the net but not much else. A high degree of *involvement*, as you have to climb the net by yourself, a *novel* experience for most people.

The second prototype we will discuss is the Cabin to Cabin experience developed by Tamsøya. We consider the experience to have a high degree of *hedonism*. The excitement of discovering an island by yourself was exciting to many people we received feedback from. Many people consider this *refreshing* as guests can relax and revitalize on the island. There are not any *locals* living on the island, but the guests can interact with local hosts. The *meaning* of visiting the island concerns a feeling of autonomy. We imagine one would learn new *knowledge* when visiting Tamsøya, as guests learn a lot about the region's cultural heritage when visiting. Walking the island is a *novel* and *involving* experience for many people.

The third prototype we will discuss is the Nordkapp activity park developed by Cape Fish Group. There is a high degree of *hedonism* within this idea since kids are often excited by visiting activity parks. We are unsure about the kids experiencing *refreshment*, as we believe this is not an essential factor for children. There is a high degree of *interactions with locals* since this could be an activity centre that both locals and tourists can enjoy. Considering the level of *meaningfulness*, we suggested that the children solve the meaningful challenge in our iteration. *Knowledge* indeed happens in an activity park where self-efficacy is in focus. There is a high level of *involvement* for the kids because the design of the activities targets children. Lastly, there is a low degree of *novelty* because activity parks exist in many different destinations worldwide, and visitors have a high probability of having participated in something similar before.

Further, we will discuss if the Team building Kokelv by Aurora Glamping has a reasonable chance of becoming memorable through the ME scale. While team building should be fun, we are unsure to what degree the experience will be *hedonistic* as team building is not something one does purely for enjoyment. Concerning *refreshment*, we believe that visiting Kokelv will be a relaxing and revitalizing experience as guests are far away from the stress of the city. In Kokelv, there is the possibility of meeting locals, primarily if Aurora Glamping chooses to go forward with the iteration of helping the community. This will also increase *meaning* within the experience. Learning about working in teams may become relevant *knowledge* for the participants, but the focus is on the team and not on the individual. Team building requires a

high degree of *involvement*, but there is a low degree of novelty participating in a team building experience for many people.

Last, we will discuss the Kven museum. A museum will, to many people, have a low degree of *hedonism*, but the gamification iterations may provide some exciting moments. It may potentially be a *refreshing* experience for some people. A high degree of *interacting with locals* as guests live within and learn about the Kven community of Børselv. A high degree of *meaning*, as guests can gain *knowledge* about the little known indigenous Kven people. We are unsure to which degree the tourists will be involved, but the gamification iterations may provide some *involvement*. We believe that visiting a Kven museum is a *novel* experience to most people, and this can be further built upon by the iterations presented in results.

To summarize, argue that most ideas to do well if they were to match up to the scale developed by Kim, Ritchie and McCormick (2012). However, this is a subjective analysis, and there is no way to test if the ideas score well unless the prototypes turn into tangible experiences.

**Own Reflection and Learning**

After Phase 1, we had a deep understanding of the different segments that we identified. The PERMA map helped the participants build an empathetic, user-focused mindset and understanding in a specific way that contributed to the common goal we had of designing ME.

We believe that the understanding they achieved using this map contributed to the quality of the design challenges in Phase 2 of AR by letting the participants tap into their empathetic resources. This tool demands that the individual who uses it understands the elements of PERMA and how they interact differently within individuals.

We screened the selected ideas by using the MED canvas, which made it so that the experiences that did not have a chance of becoming memorable were filtered out. This could have contributed to the quality of the ideas selected. We also iterated the prototypes to become even more memorable based on user feedback and gamification methods. That is why we believe that the experience ideas scored so well on the scale developed by Kim, Ritchie and McCormick in our subjective analysis.

We will acknowledge that there is no way to test if an experience leads to a ME for everyone. People are different, and the creators of experiences must recognize this. While it is debatable if it is possible to test an experience for memorability pre-launch, the results from Phase 4 shows that it is possible to learn a lot about the tourist's perception of the product. However, the tourists' first perception of the experience is the deciding factor when choosing between experiences. That is why it is crucial to uncover what tourists think and feel about the experience before investing in product development. Tussiadyah (2014) tells us that the first prototype should be cost-effective. Therefore we will argue that even if we had the opportunity to prototype the whole experience, we should also still complete the action of testing one-pagers. We would advise any experience developer to do a simple experiment to see if an idea has potential and then test for memorability in the next prototyping phase.

While we are still unsure if the experiences will be considered memorable by guests, the process has given valuable feedback to the participants on creating ME from their ideas. The innovation output of combining DT and Gamification has certainly produced experiences that in our subjective analysis can become memorable, and the process we developed has contributed to this.

## 5.3 Discussion and Reflection – Subproblem Statement C

*How can the use of Design Thinking and gamification bring value to the innovation practice of the five experience providers of Nordkapp?*

This chapter will discuss how using DT and Gamification in an innovation process can contribute to the further innovation practice of the experience providers in Nordkapp. The aim of this is to assist in providing an answer to subproblem statement C.

As mentioned in the case description, the EE of Nordkapp has shown a lack of differentiation within the products offered to tourists. The research done by Tweneboah-Koduah et al. (2020) states that tourism businesses that successfully implement customisation, involving the customer in product development, will achieve value creation through innovation. As discussed previously, the experience providers' innovation process had a high degree of customer involvement, as the experiences match customer demands as instructed by the DT process.

Pine and Gilmore mention that the increasing EE and the current customisation trend will bring forward a new mega-trend called individualization. The experience providers who participated in the workshop must be aware of this and see if their products fit this mega-trend. To succeed with this, further understanding the model progression of economic value (as seen in Figure 1) will be necessary. This model aims for transformational experiences, which is achieved by developing differentiated products relevant to the tourist. We believe as researchers that having a high grade of customisation within the product through using the core elements of DT in experience development will benefit the creation of relevant experiences. When applying DT correctly, one needs to iterate on the solution until it becomes relevant.

On the other hand, we believe that gamification can assist in creating products that are unique and differentiated. We believe that ME-elements, concepts and methods provide exceptional motivational and engaging solutions that the experience providers can use to reach the transformational experience. The developed tools PERMA map and MED canvas, based on the work of Seligman & Csikszentmihalyi (2014) and Egger & Bulenceas (2015), have provided the workshop participants with easy to use methods that can improve the memorability of an experience. This adds to the value this process has delivered to the experience providers.

The innovation practice in Nordkapp, as discussed in the case description, has been categorized by internal price wars and cannibalization. We argue that if the innovation process developed is implemented strategically, it can improve innovation practice for two main reasons. The first reason is cooperation, knowledge sharing and creation. These are typical drivers of innovation in tourism, as noted by Divisekera & Nguyen (2018). Cooperation will mean that the experience providers can discuss internally how their products are customized to individual tourists, differentiating the experiences and avoiding cannibalism. The participants mentioned that a significant benefit of participating in this innovation process was discussing challenges with the other experience providers in the area. Secondly, the user focus of DT and the use of gamification can make the experiences position themselves higher up in the model progression of economic value. As noted by Pine and Gilmore, achieving the transformational experience will mean that the experience providers can charge a higher price for the experiences as demand rises, avoiding price wars.

While it is difficult to be sure how gamification and DT will bring value to the innovation practice of Nordkapp, we believe that the process contributed value to the experience

providers. They achieved a user-focused and iterative mindset, a central part of succeeding with innovation in tourism experiences, as noted in the design framework constructed by Tussyadiah (2014). Most certainly, this has given value to the experience providers in the form of understanding how experiences can serve real needs for the customer, avoiding wicked problems.

As discussed with the experience providers in the introduction meeting in the AR, they wanted to explore how they could attract individual travellers through using innovation. To conclude subproblem statement C, we believe that the experience providers now have the necessary mindset and tools to develop ME that serve real customer needs. We hope that they use this new knowledge to continue working on restructuring the tourism industry post-covid, attracting individual tourists that bring value to the local community.

# 6. Conclusion

## 6.1 An Overall Conclusion

This study developed and conducted an innovation process based on four phases and several central principles from DT and gamification. The main problem statement of this study has been the following:

*How can Design Thinking and gamification improve innovation in the development of memorable experiences within tourism?*

To answer this, we created three subproblem statements. It was necessary to discuss how we implemented DT and gamification and to discuss the output produced by this innovation process. Further, we discussed how the innovation process improved the innovation practice of the experience providers.

The first phase of DT can improve innovation in ME by gaining a complete and thorough understanding of the tourist. In this phase, we investigated how PERMA is essential to different users of experiences. In Phase 2 of DT we defined design challenges together with the experience providers. This required us to adapt a player taxonomy persona framework to a tourism context, a previously untested method in gamification in tourism. The developed PERMA map encouraged the participants in the workshop to achieve an empathetic mindset towards those searching experiences. Design challenges assisted the experience providers in coming up with ideas in Phase 3 of DT. New experience ideas were made tangible by applying the novel tool MED canvas, a self-developed tool for screening and prototyping ideas. We also applied this tool in Phase 4, where we tested the ideas through one-pagers and iterated on the ideas using the ME-elements within the canvas. The products developed through using this process did all have the potential to become memorable based on our qualitative analysis regarding the scale of ME developed by Kim, Ritchie and McCormick (2012).

We can conclude that the tools we have developed in this process are novel additions to using gamification within DT. It provides a fresh perspective on finding the best practice for working with innovation in ME. We can also conclude that this process is helpful to the five experience providers as we have gathered new knowledge on how to leverage DT and gamification to develop relevant and differentiated experiences within the tourism industry.

## 6.2 Weaknesses and Limitations of the Study

AR is a cyclic process that should be repeated several times to achieve the best results. In this study, we only had the opportunity to conduct one AR cycle for each phase in DT. Therefore, we suggest repeating the study for ensuring repeatability and rigour. One thing that makes this process challenging to repeat is that we made several changes to the study along the way, which is a widespread occurrence in action research. However, as Phase 1 of our research had a significant impact on the rest of the phases, we are unsure to which degree the results can be replicated. We will argue that the output results from this study are less relevant to DT and gamification than the tools developed within this study, as these tools can easily be replicated in other contexts.

Another limitation of this study is that when developing an innovation process, the study has been impacted by our own opinions and subjective thoughts. This is natural when working with product development, as a lot of the information you are working with are untested assumptions.

## 6.3 Further Research

Just like product development in DT, process development needs a trial and error approach. We believe that if this process is repeated, it will improve for each iteration. Our most significant pain point during the process was the complexity of the theoretical framework of gamification. We believe that the tools we have developed can become more intuitive, even for untrained individuals. This process should also be repeated in other tourism contexts and the context of other industries. As noted by Pine and Gilmore (1999), an experience can be added to anything. Therefore, we suggest that further research explore and discuss how using gamification within DT can create ME in industries where the experience is not the primary goal. This can also benefit the understanding of how the progression of economic value contributes to value creation.

There is little research on exactly how gamification and DT can contribute to the ME, and further work is needed to provide a more precise answer to our problem statement. Since DT and gamification have worked well in this context, we suggest further work on this combination of theoretical frameworks. We believe this will result in finding the best possible solutions from both concepts.

# Litterature


[1]. Argyris, C., Putnam, R., & Smith, D. (1985). Action Science: Concepts, Methods, and Skills for Research and Intervention. *Jossey - Bass Inc., Publisher*.

[2]. Baskerville, R. L., & Wood-Harper, A. T. (1996). A critical perspective on action research as a method for information systems research. *Journal of Information Technology*, *11*(3), 235–246.

[3]. Bergum, S. (2004). Kunder som kilde til innovasjon. Om brukere, kommunikasjon og IKT i innovasjonsprosesser. Retrieved April 23, 2021, from http://www.ostforsk.no/wp-content/uploads/2014/11/182004.pdf

[4]. Bille, T. (2012). The Scandinavian approach to the experience economy – does it make sense? *International Journal of Cultural Policy*, *18*(1). https://doi.org/10.1080/10286632.2011.561924

[5]. Bille, T., & Lorenzen, M. (2008). *Den danske oplevelsesøkonomi: Afgrænsning, økonomisk betydning og vækstmuligheder*. Frederiksberg: Samfundslitteratur.

[6]. Boswijk, A., Peelen, E., Olthof, S., & Beddow, C. (2012). *Economy of experiences* (3rd ed). Amsterdam: Pearson Education Benelux.

[7]. Bradbury-Huang, H. (2010). What is good action research? Why the resurgent interest? *Action Research*, *8*(1), 93–109. https://doi.org/10.1177/1476750310362435

[8]. Brown, T. (2008). Design Thinking. *Harvard Business Review*, *86*(6), 1–11.

[9]. Bryman, A., & Bell, E. (2011). *Business Research Methods* (Third ed). New York: Oxford University Press.

[10]. Carlgren, L., Elmquist, M., & Rauth, I. (2016). The Challenges of Using Design Thinking in Industry - Experiences from Five Large Firms. *Creativity and Innovation Management*, *25*(3). https://doi.org/10.1111/caim.12176

[11]. Carlgren, L., Rauth, I., & Elmquist, M. (2016). Framing Design Thinking: The Concept in Idea and Enactment. *Creativity and Innovation Management*, *25*(1). https://doi.org/10.1111/caim.12153

[12]. Chasanidou, B., Gasparini, A., & Lee, E. (2015). Design Thinking Methods and Tools for Innovation. *Springer International Publishing Switzerland*. https://doi.org/https://doi.org/10.1007/978-3-319-20886-2_2

[13]. Coghlan, D., & Brannick, T. (2005). *Doing action research in your own organization* (Second ed). London: SAGE Publications.

[14]. Coughlan, P., & Coghlan, D. (2002). Action research for operations management. *International Journal of Operations and Production Management*, *22*(2), 220–240. https://doi.org/10.1108/01443570210417515

[15]. Deterding, S. (2012). Gamification: Designing for Motivation. *Hamburg University*, 14–17. https://doi.org/10.1145/2212877.2212883

[16]. Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining "gamification." In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, MindTrek 2011* (pp. 9–15). https://doi.org/10.1145/2181037.2181040

[17]. Divisekera, S., & Nguyen, V. K. (2018). Drivers of innovation in tourism: An econometric study. *Tourism Economics*, *24*(8), 998–1014. https://doi.org/10.1177/1354816618794708

[18]. Egger, R., & Bulencea, P. (2015). *Gamification in Tourism: Designing Memorable Experiences* (Vol. 188). Norderstedt: BoD – Books on Demand.

[19]. Fagerberg, Jan., Mowery, D. C., & Nelson, R. R. (2005). *The Oxford handbook of innovation*. Oxford University Press.

[20]. Filep, S., & Pearce, P. L. (2013). *Introducing tourist experience and fulfilment research.* Retrieved from https://www.researchgate.net/publication/269223260
[21]. Fredrickson, B. L. (1998). What Good Are Positive Emotions? *Review of General Psychology*, *2*(3). https://doi.org/10.1037/1089-2680.2.3.300
[22]. Goldschmidt, G. (2016). Linkographic Evidence for Concurrent Divergent and Convergent Thinking in Creative Design. *Creativity Research Journal*, *28*(2), 115–122. https://doi.org/10.1080/10400419.2016.1162497
[23]. Hall, C. M., & Williams, A. M. (2008). *Tourism and Innovation*. Routledge. https://doi.org/10.4324/9780203938430
[24]. Hjalager, A.-M. (2015). 100 Innovations That Transformed Tourism. *Journal of Travel Research*, *54*(1). https://doi.org/10.1177/0047287513516390
[25]. Hoholm, T., & Huse, M. (2008). Brukerdrevet innovasjon i Norge.
[26]. Hosany, S., Zeglat, D., & Odeh, K. (2016). *Measuring Experience Economy Concepts in Tourism: A Replication and Extension*. Retrieved from https://scholarworks.umass.edu/ttra/2009/Presented_Papers/28
[27]. Innovation Norway. (2018). Turistundersøkelsen. Retrieved May 8, 2021, from https://assets.simpleviewcms.com/simpleview/image/upload/v1/clients/norway/Ny_Turistunders_kelsen_2018_Om_bruk_av_kulturtilbud_0c98d800-ebde-45d2-877d-6b2c57ff72e6.pdf
[28]. Institute of Design, S. (2021). Tools for taking action. Retrieved May 9, 2021, from https://dschool.stanford.edu/resources
[29]. Işık, C., Küçükaltan, E. G., Taş, S., Akoğul, E., Uyrun, A., Hajiyeva, T., Turan, B., Dırbo, A. H., & Bayraktaroğlu, E. (2019). *Ekonomi Tourism and innovation: A literature review*. *Journal of Ekonomi* (Vol. 02). Retrieved from https://dergipark.org.tr/ekonomi
[30]. Iversen, E. K., Løge, T., & Helseth, A. (2017). Reiseliv i nord. Retrieved April 23, 2021, from https://www.menon.no/wp-content/uploads/2017-51-Reiseliv-i-Nord-Norge.pdf
[31]. Jensen, M. B., Johnson, B., Lorenz, E., & Lundvall, B. Å. (2007). Forms of knowledge and modes of innovation. *Research Policy*, *36*(5). https://doi.org/10.1016/j.respol.2007.01.006
[32]. Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of Business Research*, *64*(4), 408–417. https://doi.org/10.1016/j.jbusres.2010.09.010
[33]. Johannessen, A., Tufte, P. A., & Christoffersen, L. (2016). *Introduksjon til samfunnsvitenskapelig metode* (Vol. 458). Abstrakt Forlag.
[34]. Karwowski, M., & Soszynski, M. (2008). How to develop creative imagination?: Assumptions, aims and effectiveness of Role Play Training in Creativity (RPTC). *Thinking Skills and Creativity*, *3*(2), 163–171. https://doi.org/https://doi.org/10.1016/j.tsc.2008.07.001
[35]. Kaur, G., & Kaur, C. (2020). COVID-19 and the Rise of the New Experience Economy. *FIIB Business Review*, *9*(4), 239–248. https://doi.org/10.1177/2319714520958575
[36]. Kim, A. (2012). Social Engagement: who's playing? how do they like to engage? Retrieved from https://amyjokim.com/blog/2012/09/19/social-engagement-whos-playing-how-do-they-like-to-engage/
[37]. Kim, J.-H., Ritchie, J. R. B., & McCormick, B. (2012). Development of a Scale to Measure Memorable Tourism Experiences. *Journal of Travel Research*, *51*(1). https://doi.org/10.1177/0047287510385467
[38]. Lazzaro, N. (2009). *Why we play: Affect and the fun of games*. (A. Sears & J. A. Jacko, Eds.) (Vol. 1). CRC Press.
[39]. Meister, J. (2012). The Future Of Work: How To Use Gamification For Talent Management. Retrieved April 20, 2021, from https://www.forbes.com/sites/jeannemeister/2012/05/21/the-future-of-work-how-to-use-gamification-for-talent-management/?sh=46e4621b98d3

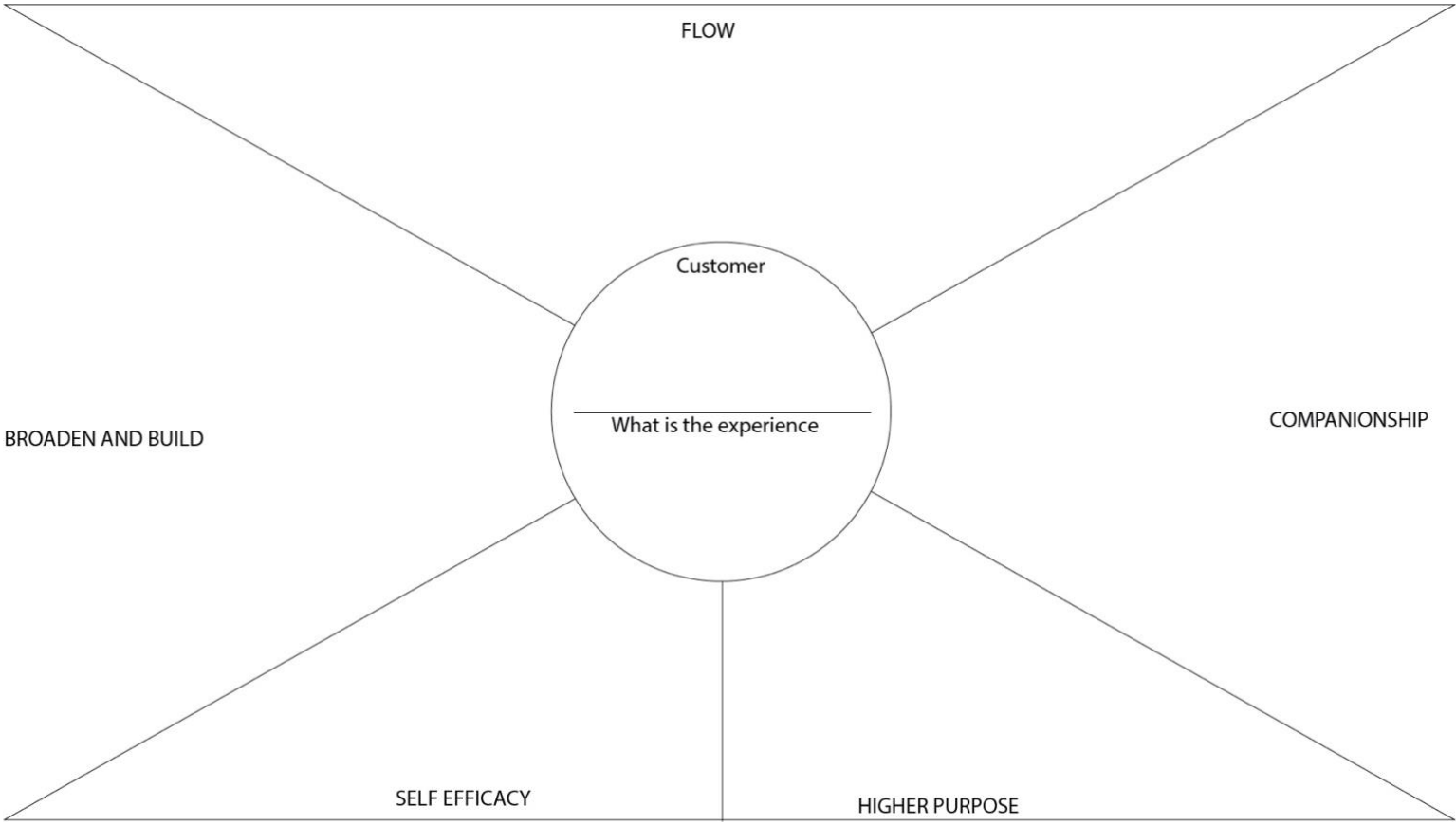
[40]. Melrose, M. J. (2001). Maximizing the Rigor of Action Research: Why Would You Want To? How Could You? *Field Methods*, *13*(2). https://doi.org/10.1177/1525822X0101300203
[41]. Micheli, P., Wilner, S. J. S., Bhatti, S. H., Mura, M., & Beverland, M. B. (2019). Doing Design Thinking: Conceptual Review, Synthesis, and Research Agenda. *Journal of Product Innovation Management*, *36*(2). https://doi.org/10.1111/jpim.12466
[42]. Negruşa, A. L., Toader, V., Sofică, A., Tutunea, M. F., & Rus, R. V. (2015). Exploring gamification techniques and applications for sustainable tourism. *Sustainability (Switzerland)*, *7*(8), 11160–11189. https://doi.org/10.3390/su70811160
[43]. NHO. (2019). *Strategi «2x30»*. Retrieved from https://www.nhoreiseliv.no/om-oss/dokument/nho-reiselivs-strategi-2019-2022/
[44]. Nicholson, S. (2012). A User-Centered Theoretical Framework for Meaningful Gamification. *Syracuse University*, 1–7. Retrieved from https://scottnicholson.com/pubs/meaningfulframework.pdf
[45]. Nordin, S., & Hjalager, A. M. (2016). Doing, using, interacting: Towards a new understanding of tourism innovation processes. In *Driving Tourism through Creative Destinations and Activities* (pp. 165–180). IGI Global. https://doi.org/10.4018/978-1-5225-2016-0.ch008
[46]. NordNorsk Reiseliv AS. (2021). Nordkapp. Retrieved April 3, 2021, from https://nordnorge.com/destinasjon/nordkapp/
[47]. NSD. (2021). Personverntjenester. Retrieved May 7, 2021, from https://www.nsd.no/personverntjenester/
[48]. Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation. *John Wiley & Sons, Inc.*
[49]. Pedersen, A.-J., Brunvoll, R., & Peters, S. (2020). *Statusanalyse Masterplan Nordkapp 2014*. Retrieved from http://www.reiselivinord.no/2019/09/nordnorsk-reiselivsstatistikk-2018-2/
[50]. Pine, J., & Gilmore, J. (1999). *The Experience Economy, Work Is Theatre & Every Business a Stage*. Boston: Harvard Business School Press.
[51]. Pine, J., & Gilmore, J. (2013). *The experience economy: Past, present and future*. *Handbook on the Experience Economy*. Edward Elgar Publishing Ltd. https://doi.org/10.4337/9781781004227.00007
[52]. Rigby, S., & Ryan, R. (2011). *Glued to Games: How Video Games Draw Us In and Hold Us Spellbound* (Vol. 175). Santa Barbara: ABC-CLIO.
[53]. Robbins, P., & Devitt, F. (2017). *Collaboration, creativity and entrepreneurship in tourism: a case study of how design thinking created a cultural cluster in Dublin*. *Int. J. Entrepreneurship and Innovation Management* (Vol. 21).
[54]. Rodriguez-Sanchez, I., Williams, A. M., & Brotons, M. (2019). The innovation journey of new-to-tourism entrepreneurs. *Current Issues in Tourism*, *22*(8), 877–904. https://doi.org/10.1080/13683500.2017.1334763
[55]. Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being., *55*(1), 68–78. Retrieved from https://static1.squarespace.com/static/5c96d4ec0cf57d91390bd370/t/5cae46c1ec212dac4006d7d4/1554925256116/SDTandintmotive+%281%29.pdf
[56]. Sander, K. (2019a). Aksjonsforskning. Retrieved April 16, 2021, from https://estudie.no/aksjonsforskning/
[57]. Sander, K. (2019b). Brainstorming (Idédugnad). Retrieved May 7, 2021, from https://estudie.no/brainstorming/
[58]. Sander, K. (2019c). Innovasjonsmodell. Retrieved April 24, 2021, from https://estudie.no/innovasjonsmodeller/

[59]. Sándorová, Z., Repáňová, T., Palenčíková, Z., & Beták, N. (2020). Design thinking - A revolutionary new approach in tourism education? *Journal of Hospitality, Leisure, Sport & Tourism Education*, *26*. https://doi.org/10.1016/j.jhlste.2019.100238
[60]. Schell, J. (2008). *The Art of Game Design*. CRC Press. https://doi.org/10.1201/9780080919171
[61]. Seaborn, K., & Fels, D. I. (2015). Gamification in theory and action: A survey. *International Journal of Human-Computer Studies*, *74*. https://doi.org/10.1016/j.ijhcs.2014.09.006
[62]. Seidel, V. P., & Fixson, S. K. (2013). Adopting Design Thinking in Novice Multidisciplinary Teams: The Application and Limits of Design Methods and Reflexive Practices. *Journal of Product Innovation Management*, *30*. https://doi.org/10.1111/jpim.12061
[63]. Seligman, M. (2018). PERMA and the building blocks of well-being. *Journal of Positive Psychology*, *13*(4), 333–335. https://doi.org/10.1080/17439760.2018.1437466
[64]. Seligman, M. E. P., & Csikszentmihalyi, M. (2014). Positive psychology: An introduction. In *Flow and the Foundations of Positive Psychology: The Collected Works of Mihaly Csikszentmihalyi* (Vol. 9789401790888, pp. 279–298). Springer Netherlands. https://doi.org/10.1007/978-94-017-9088-8_18
[65]. Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, *117*, 312–321. https://doi.org/10.1016/j.jbusres.2020.06.015
[66]. Silverman, D. (2014). *Interprenting Qualitative Data 5th ed.* SAGE Publications Ltd.
[67]. Siricharoen, W. V. (2021). Using Empathy Mapping in Design Thinking Process for Personas Discovering. In P. C. Vinh & A. Rakib (Eds.), *Context-Aware Systems and Applications, and Nature of Computation and Communication* (pp. 182–191). Cham: Springer International Publishing.
[68]. Smith, A. M., Lewis, C., Hullett, K., Smith, G., & Sullivan, A. (2011). *An Inclusive Taxonomy of Player Modeling*. Retrieved from https://www.researchgate.net/publication/228685393_An_Inclusive_Taxonomy_of_Player_Modeling
[69]. SSB. (2018, March 16). Utlendingene gav solid vekst i norsk turistnæring. Retrieved May 18, 2021, from https://www.ssb.no/nasjonalregnskap-og-konjunkturer/artikler-og-publikasjoner/utlendingene-gav-solid-vekst-i-norsk-turistnaering
[70]. Store Norske Leksikon. (2021). Turisme i Norge. Retrieved April 16, 2021, from https://snl.no/turisme_i_Norge
[71]. Susman, G. I., & Evered, R. D. (1978). An Assessment of the Scientific Merits of Action Research. *Administrative Science Quarterly*, *23*(4). https://doi.org/10.2307/2392581
[72]. Tussyadiah, I. P. (2014). Toward a Theoretical Foundation for Experience Design in Tourism. *Journal of Travel Research*, *53*(5), 543–564. https://doi.org/10.1177/0047287513513172
[73]. Tussyadiah, I. P. (2017). Technology and Behavioral Design in Tourism. *Springer International Publishing*. https://doi.org/10.1007/978-3-319-42773-7_12
[74]. Tweneboah-Koduah, E. Y., Anning-Dorson, T., & Nyamekye, M. B. (2020). Impact of customization and innovation on hospitality firms' performance. *Journal of Hospitality Marketing & Management*, *29*(1). https://doi.org/10.1080/19368623.2019.1528917
[75]. van Dam, T., & Bakkes, S. (2019). *The ACE2 Model: Refining Bartle's Player Taxonomy for Creation Play*.
[76]. Visit Norway. (2017). *MOT ET BAEREKRAFTIG REISELIV Veikart fra reiselivsnaeringen i Norge*. Retrieved from: https://assets.simpleviewcms.com/simpleview/image/upload/v1/clients/norway/veikart_reiseliv_4korr_59468bf8-244f-447e-9709-8ce8ed8de49d.pdf

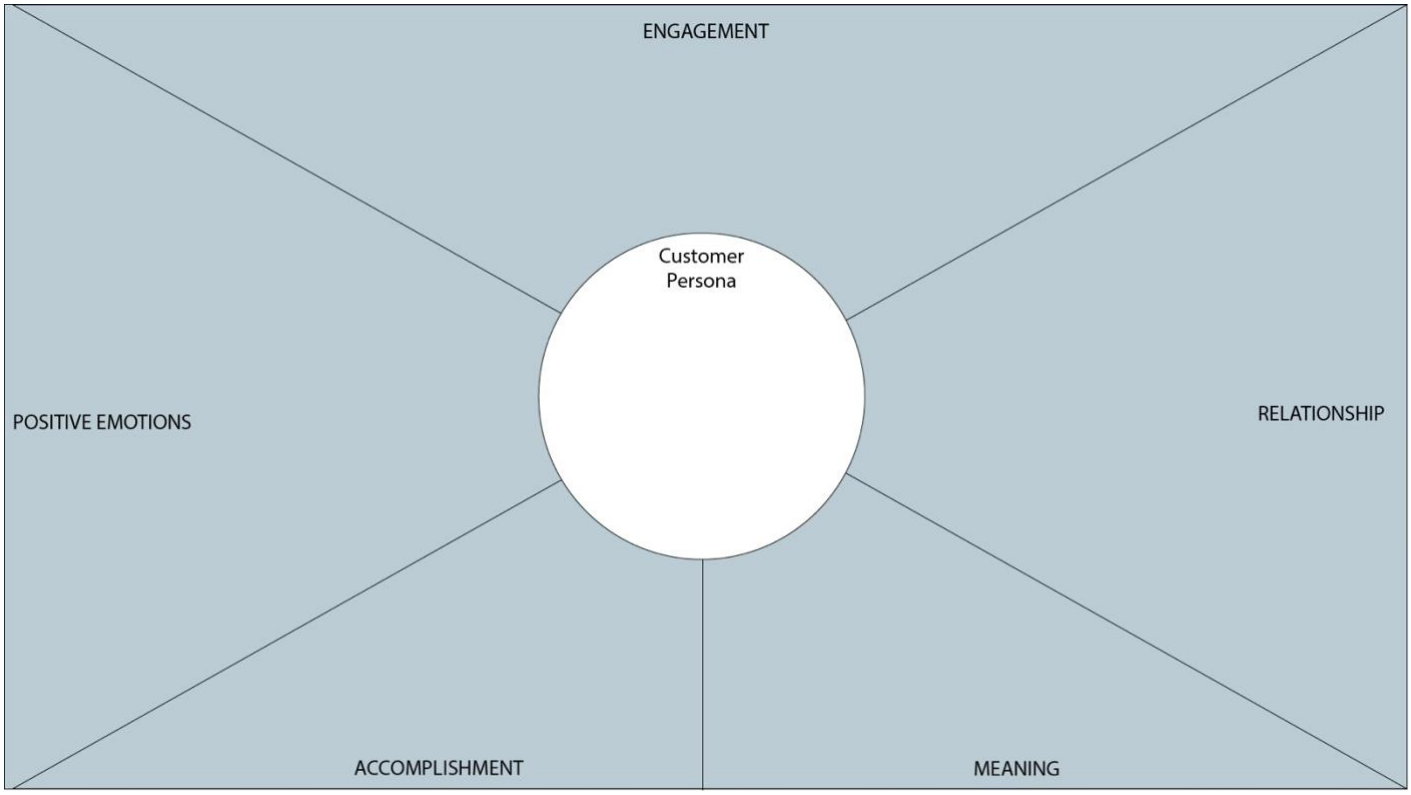
[77]. Wise, E., & Høgenhaven, C. (2008). *User-Driven Innovation Context and Cases in the Nordic Region Editors*.
[78]. Xu, F., Weber, J., & Buhalis, D. (2013). Gamification in Tourism. In *Information and Communication Technologies in Tourism 2014* (pp. 525–537). Springer International Publishing. https://doi.org/10.1007/978-3-319-03973-2_38

# Attachments

## Attachment 1 MED Canvas



# Attachment 2 Perma Map



# Attachment 3 – Interview Guide

## Interview guide: Phase 4 of DT

1. What do you think of this experience?
2. In what setting would you book this experience?
3. If not, do you think other people would book this experience?
4. What positive emotions do you anticipate from this experience?
5. Is the experience engaging to you?
6. Explain how you would enjoy doing this experience with other people?
7. Would you find any deeper meaning from this experience?
8. Would you find the experiencing challenging, and would you experience mastery from completing this experience?

# Attachment 4 – One-pagers

One-pager Destinasjon 71° Nord

## Extremopplevelser ved europas nordligste punkt

Destinasjon 71° nord

Har du noen gang drømt å være i 71 grader nord? Nå kan du få prøve å være med på finaleøvelsen i programmet!

Hvert år blir det på Nordkapp plassert ut et stort nett som finaledeltagerne i tv-programmet må forsere. Dette er en spennende og utfordrende aktivitet for de som ikke er redd for høyder! Opplevelsen starter selvfølgelig med at du får god trening i sikkerhet.

Etter det er det bare å sette i gang. Ta et steg av gangen over det dype juvet på Nordkappplatået. En opplevelse som virkelig får blodet til å bruse. Du kjenner at du blir mer og mer komfortabel før du må forsere stigen. Prøv gjerne å se ned!

På midten av nettet har vi en fotograf som tar bilde av deg. Det perfekte instagram-bilde fra din tur!
Valgfritt: Finn fasiten ved å løfte opp loddene og klatre stigen, så kan du forsøke å svare på spørsmålene som 71 grader nord finalistene må svare på. Her kan du også konkurrere med venner.

Sara 26: "Dette var noe av det tøffeste jeg har gjort. Jeg trodde egentlig ikke jeg kom til å turre dette, men de flinke guidene gjorde meg trygg. Og vennene mine sto på kanten og støttet meg gjennom!"

Ola 31: "Lenge siden jeg har hatt såpass adrenalinkick! Jeg er egentlig ikke så glad i høyder, men her følte jeg meg komfortabel etterhvert. Det var gøy at jeg gjorde det bedre enn vennene mine i konkurransen

Katarina 42: "Wow - for en opplevelse! Det å få se rett ned i juvet over Nordkapp i trygge omgivelser var altså gøy"

One-pager Tamsøya

EN REISE
TILBAKE I TID

# Tamsøya



## Hytte til hytte

Opplev Tamsøya i variert og magisk natur mens alle sanser påvirkes av vakre klippeformasjoner, fargerike blomster, bølgeskvulp, måkeskrik og vind i håret. Dette er en todagers vandretur som passer for 2-4 personer som reiser sammen. Overnatt på sørenden og nordenden av øya i sjarmerende hytter med fantastisk utsikt. Se Kobbe og Oter på nært hold, og ikke minst et yrende fugleliv og en rikholdig flora midt i Porsangerfjorden.

Hvis du vil oppleve et pusterom fra sivilisasjonen, få ødemarksfølelsen og noen dager helt fri fra stress, er dette den perfekte turen. Som en av gjestene våre skrev i anmeldelsen:
«Denne turen i Finnmark vil vi sikkert snakke om så lenge vi har vettet i behold.
Utrulig mektig natur, tok nesten pusten fra oss»


One-pager Cape Fish Group

*Nordkapp*

*Klatre og aktivitets park for barn.*

Ta med barna til fanatiske Honningsvåg, ved selveste Nordkapp. Hos oss vil barna få oppleve å lære om den spektakulære naturen her ved Europas nordligste punkt.

Vår nye klatre og aktivitetspark byr på både spenning og gleder for bare I alle aldre, selv voksne vil ha det vanskelig for å ikke trekke på smilebåndet.

La barne ditt blid med på en lærerik opplevelse. Naturen her ved nordkapp er helt spesiell, og vi har mange spektakulære naturfenomener. Barna får kommet nær på både havet, stormen og det faktisitet Nordlyset.

One-pager Aurora Glamping

# Aurora Glamping

## KOKELV

Dette er Arurora Glamping i Finnmark. Gjør deg klar for å oppleve noe nytt i vakre og trygge omgivelser i Kokelv.

Hos oss kan du velge om du vil bo i en luksushytte, hobbithytter eller i en "Arctic Dome". Fellesnevneren er at du overnatter i ekstrem nærhet til naturen. Vi tilbyr også aktiviter i et bredt spekter. Enten du foretrekker en action-fylt ferie eller en avslappende reise vekk fra storbyen vil du finne noe som passer deg.

## TEAM BUILDING

Vi har lang erfaring med team-building, og her får du det beste av det beste. Gjennom en uhøytidelig og oppbyggende konkurranse vil du kunne koble av og samtidig utfordre dere selv som team.
Øvelsene våre er kjente team-building opplevelser som hesteskokast, lassokasting, pil og bue og øksekasting, men det vil alltid være en overraskende vri på øvelsen som gjør at du får oppleve noe helt nytt. Vi tilpasser øvelsene til deg og ditt team, så vi finner en god balanse på utfordring og ferdigheter.

## AVSLAPPENDE OPPLEVELSER

Dersom du ønsker en mer avslappende og rolig opplevelse er det også mulig. Her går vi en kort fottur (30 min) opp den vakre Kokelv-dalen hvor vi til slutt ender opp ved de lokale badekulpene. De som ønsker kan ta seg et bad før man beveger seg mot saunaen. Etter dette får du spise Reinskav, tilberedt på bålpanne. Dette måltidet vil være tilberedt med kun lokale råvarer for å gi en smak av det autentiske Finnmark

Så enten om du er ute etter å bygge felleskap blant dine organisasjonsmedlemmer eller ønsker et avbrekk fra den travle hverdagen, har Aurora Glamping noe for deg i omgivelser du aldri vil glemme.

One-pager Tourism Start-up

# Kvensk Museum

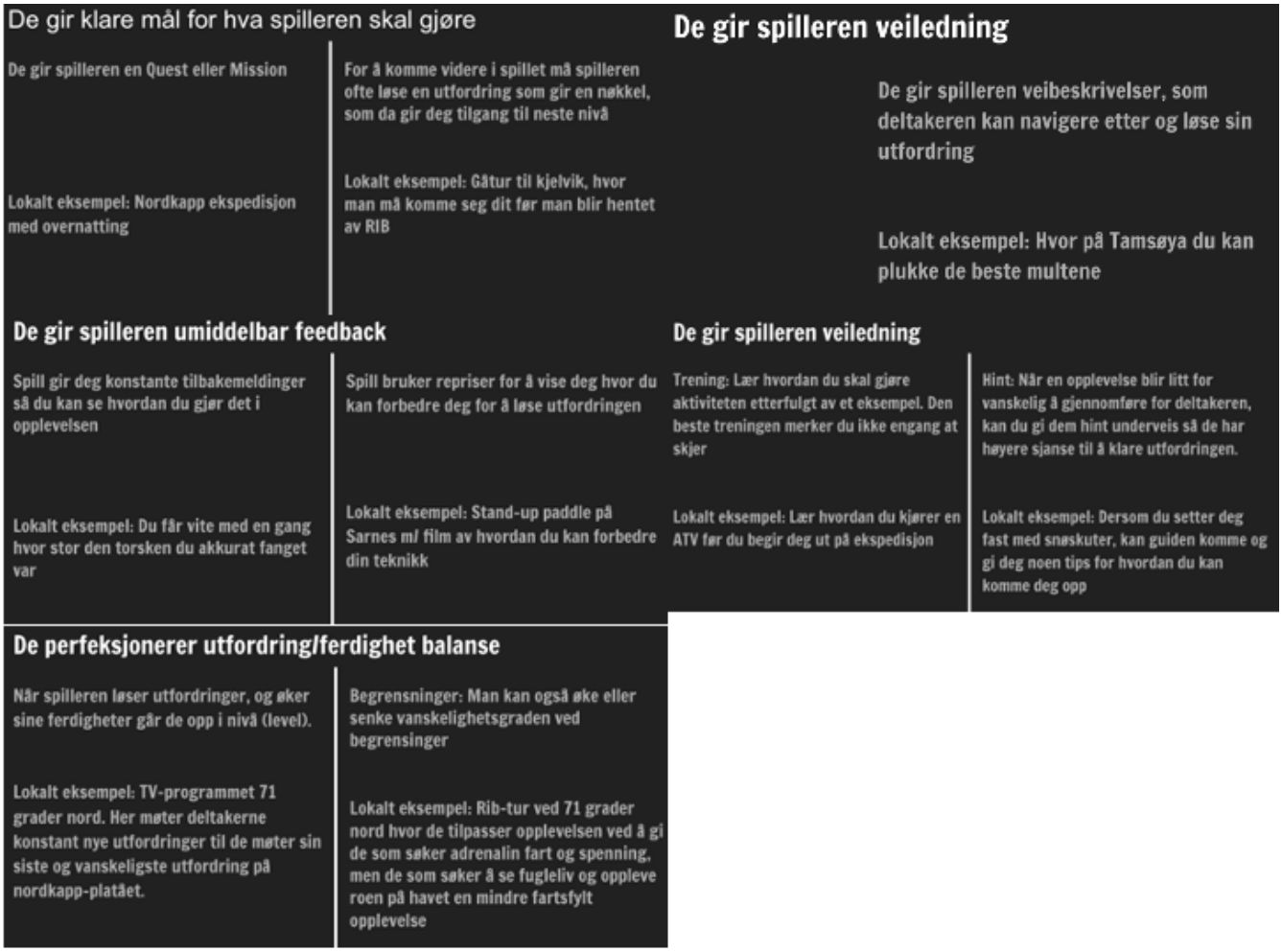
Få innblikk i det kvenske folks dagliglivets kulturhistorie gjennom tidene. Opplev en spennende kultur, og hør historier du ikke ville tro var sann og smak på kvenske delikatesser som gir deg vann i munn. Åpne øynene for den fantastiske historien om det kvenske folk.

# Attachment 5 – Local Examples within the MED Framework

Broaden and Build

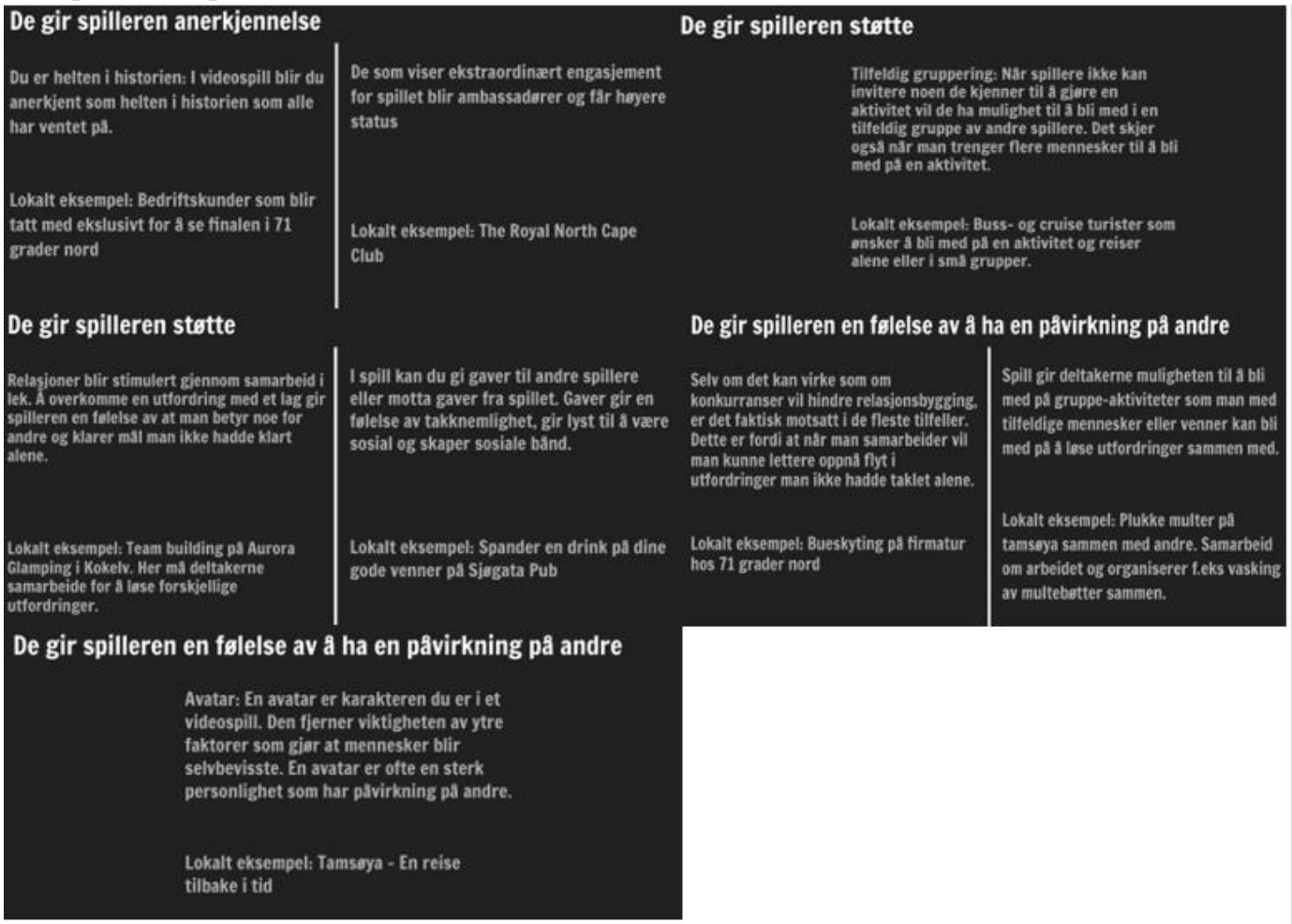
Self-effcacy

Flow


De gir klare mål for hva spilleren skal gjøre
De gir spilleren en Quest eller Mission
For å komme videre i spillet må spilleren ofte løse en utfordring som gir en nøkkel, som da gir deg tilgang til neste nivå
Lokalt eksempel: Nordkapp ekspedisjon med overnatting
Lokalt eksempel: Gåtur til kjelvik, hvor man må komme seg dit før man blir hentet av RIB
De gir spilleren veiledning
De gir spilleren veibeskrivelser, som deltakeren kan navigere etter og løse sin utfordring
Lokalt eksempel: Hvor på Tamsøya du kan plukke de beste multene
De gir spilleren umiddelbar feedback
Spill gir deg konstante tilbakemeldinger så du kan se hvordan du gjør det i opplevelsen
Spill bruker repriser for å vise deg hvor du kan forbedre deg for å løse utfordringen
Lokalt eksempel: Du får vite med en gang hvor stor den torsken du akkurat fanget var
Lokalt eksempel: Stand-up paddle på Sarnes m/ film av hvordan du kan forbedre din teknikk
De gir spilleren veiledning
Trening: Lær hvordan du skal gjøre aktiviteten etterfulgt av et eksempel. Den beste treningen merker du ikke engang at skjer
Hint: Når en opplevelse blir litt for vanskelig å gjennomføre for deltakeren, kan du gi dem hint underveis så de har høyere sjanse til å klare utfordringen.
Lokalt eksempel: Lær hvordan du kjører en ATV før du begir deg ut på ekspedisjon
Lokalt eksempel: Dersom du setter deg fast med snøskuter, kan guiden komme og gi deg noen tips for hvordan du kan komme deg opp
De perfeksjonerer utfordring/ferdighet balanse
Når spilleren løser utfordringer, og øker sine ferdigheter går de opp i nivå (level).
Begrensninger: Man kan også øke eller senke vanskelighetsgraden ved begrensinger
Lokalt eksempel: TV-programmet 71 grader nord. Her møter deltakerne konstant nye utfordringer til de møter sin siste og vanskeligste utfordring på nordkapp-platået.
Lokalt eksempel: Rib-tur ved 71 grader nord hvor de tilpasser opplevelsen ved å gi de som søker adrenalin fart og spenning, men de som søker å se fugleliv og oppleve roen på havet en mindre fartsfylt opplevelse

Higher Purpose

Companionship



# Attachment 6 – Workshop Agenda

Place: xxx.

Time: 02.03.2021 11:00 – 15:00 and 03.03.2021 11:00 – 15:00

Facilitators: Markus Hasler Sveen, Rolf Oftedal, Kristian Listou Riksheim

Participents: xxx, xxx, xxx, xxx, xxx, xxx.

**Day 1 – 02.03.2021**

11:00 – 11:10 Introduction

11:10 – 11: 20 Introduction to the digital innovation platform

11:20 – 12:20 Insights /w PERMA-map

12:00 – 12:15 Break

12:15 – 13:00 Roleplay

13:00 – 13:30 Choose challenge

13:30 – 13:45 Break

13:45 – 14:00 Presentation of challenge

13:00 – 14:45 Brainstorming

14:45 – 15:00 Wrap up

**Day 2 – 03.03.2021**

11:00 – 11:10 Introduction and Recap

11:10 – 11:40 Nordkapp in 2031 – Creative exercise

11:40 – 12:10 Screening the ideas

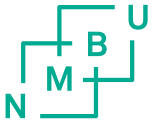
12:10 – 12:20 Break

12:20 – 13:20 Introduction to gamification and MED canvas

13:20 – 14:15 Introduce gamification elements to the idea with the MED canvas

14:15 – 14:45 Interest curve

14:45 – 15:00 Wrap up

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Norwegian University of Life Sciences

Postboks 5003
NO-1432 Ås
Norway